

# **CATALOGUE STEVIK**

### **AUXILIARY MATERIALS RANGE**

Nr.	Category	Name
1	<u>Vacuum films</u>	SK2VF
2	Release films	SK2RF
3	Sealant Tapes	<u>SK2ST</u>
4	Release Fabrics	SK2RE
5	Peel Plies	SK2PP
6	Breathers / Bleeders	SK2BB
7	Adhesive Tapes	SK2AT
8	<u>Rubbers</u>	<u>SK2RS</u>
9	Tool Release	SK2TR
10	<u>Vacuum Hoses and Valves</u>	SK2VV
11	Tooling Materials	SK2TM
12	Resin Infusion Materials	SK2RIM



## **VACUUM FILMS**

### **RANGE**

Back to content

Multilayer vacuum film for manufacturing of wide and complex structures  SK2VF120-E1  SK2VF170-1  SK2VF170-1  SK2VF170-2  Multilayer vacuum film for oven and autoclave manufacturing of wide and complex structures  Nylon vacuum film for oven and autoclave manufacturing of wide and complex structures  Multilayer vacuum bagging film for manufacturing of wide and complex structures  Multilayer vacuum bagging film for manufacturing of wide and complex structures  Multilayer vacuum bagging film for manufacturing of wide and complex structures  Multilayer vacuum bagging film for manufacturing of wide and complex structures  SK2VF170-3  SK2VF170-3  SK2VF180-1  SSOft nylon vacuum bagging film for anutoclave and oven molding  SSOft nylon vacuum bagging film for autoclave and oven molding  SK2VF200-1  SK2VF200-2  SK2VF200-2  Very soft nylon vacuum bagging film for autoclave and oven molding  SK2VF200-3  SK2VF200-3  SK2VF200-4  Very soft nylon vacuum bagging film for autoclave and oven molding  SK2VF200-4  SK2VF200-5  SK2VF200-5  SK2VF200-5  SK2VF204-5  SK2VF204-6  SK2VF204-7  SK2VF204-8  SK2VF204-8  SPecial vacuum film for more autoclave and oven molding cost effective nylon vacuum bagging film for autoclave and oven molding cost effective nylon vacuum bagging film for autoclave and oven molding cost effective nylon vacuum film for manufacturing of parts with phenolic resins  Nylon vacuum film for autoclave and oven molding cost effective nylon vacuum film for autoclave and oven molding cost effective nylon vacuum film for autoclave and oven molding cost effective nylon vacuum film for manufacturing of parts with phenolic resins  Nylon vacuum film for autoclave and oven applications  SK2VF205-1  Embossed nylon film for debulking processes Heat-resistant nylon film for debulking processes Heat-resistant nylon film for debulking processes Heat-resistant nylon film for autoclave and oven applications				Elongation	Dack to content
SK2VF120-E1   manufacturing of wide and complex structures   Embossed multilayer vacuum   film for manufacturing of wide and complex structures   Nylon vacuum film for oven and autoclave manufacturing of wide and complex structures   Nylon vacuum film for oven and autoclave manufacturing of wide structures   Multilayer vacuum bagging film for manufacturing of wide and complex structures   Multilayer vacuum bagging film for manufacturing of wide and complex structures   Multilayer vacuum bagging film for manufacturing of wide and complex structures   SK2VF170-3   Standard nylon vacuum bagging film for autoclave and oven molding   SK2VF200-1   Soft nylon vacuum bagging film for autoclave and oven molding   SK2VF200-2   Signification   Signi	Name	Description	Max. use T°C		Color
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Multilayer vacuum bagging film for manufacturing of wide and complex structures	SK2VF170-2	1	177.0	405%	Blue / Yellow
SK2VF180-1  SK2VF180-1  SK2VF200-1  SK2VF200-1  SK2VF200-2  SK2VF200-2  SK2VF200-3  SK2VF204-1  SK2VF204-1  SK2VF204-2  SK2VF204-3  SK2VF205-2  SK2VF205-3  SK2VF2					
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debulking processes  Heat-resistant nylon film for autoclave and oven  205 C 400%  Transparent  205 C 400%  Transparent  208 C 380%  Blue					
Heat-resistant nylon film for autoclave and oven 220°C 380% Blue	SK2VF205-2		205°C	400%	Transparent
SK2VF220-1 autoclave and oven 220°C 380% Blue		<u> </u>			
	SK2VF220-1		220°C	380%	Blue
арричания	<u> </u>	applications			5.00



## **VACUUM FILMS**

### **RANGE**

SK2VF230-1	High temperature resistant nylon vacuum film	230°C	380%	Light blue
SK2VF246-1	High temperature resistant soft nylon vacuum film	246°C	375%	Orange
SK2VF260-1	High-elastic PTFE vacuum film	260°C	400%	Yellow
SK2VF400-1	Ultra-high temperature bagging polyimide film	400°C	85%	Amber
SK2VR145-1	Economical self-releasing multilayer vacuum bagging film	145°C	410%	Light green
SK2VR160-1	Self-releasing multilayer vacuum bagging film	160°C	445%	Green

Folding shape

Vacuum film dimensional chart

Resin compatibility

## TECHNICAL DATA SHEET

SK2VF120-1

### Multilayer vacuum bagging film

Back to range

#### DESCRIPTION

SK2VF120-1 is a tough, puncture resistant co-extrusion of nylon and polyolefin based resins vacuum film, which is designed for use in the production of polyester / vinylester resin infused components for the wind energy, marine and general composite industries.

The product can be used in the production of epoxy resins prior to testing chemical resistance with specific resin.

It is particularly interesting due to its limited sensitivity to low humidity levels which are often problematic to predominantly nylon based films as the lack of moisture can reduce flexibility. This ensures consistent yearlong performance in all workshop environments.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Test method

Material type: Multilayer

Color: Green

Tensile strength at break:39,3 MPaASTM D882Elongation at break:460%ASTM D882Tear strength:1,5 NISO1683-1

Maximum use temperature: 120°C

#### SIZES OF FILMS

Thickness	Width	Length	Folding shape
	2000mm	400m	SHT
	4000mm	200m	CF
75μm ± 10%	2000	105m	LGT
	6000mm	125m	LGT
	8000mm	80m	LGT
90um + 109/	10000mm	75m	LGT
80μm ± 10%	12000mm	75m	LGT

## **TECHNICAL DATA SHEET**

SK2VF120-1

### Multilayer vacuum bagging film

16000mm	30m	LGT
10000111111	70m	LGT

Shelf life: unlimited.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing, protected from direct sun and heat source.

#### **►** NOTE

For the roll with width 16000mm other lengths are available under request.

Folding shapes: SHT - sheeting, CF - centerfold, LFT = lay-flat tubing, LGT- lay-gusseted tubing. For more information, please read the technical information page: SK2VF\_Folding shape.



SK2VF120-E1

### Embossed multilayer vacuum bagging film

Back to range

#### DESCRIPTION

SK2VF120-E1 is a tough, puncture resistant co-extrusion of nylon and polyolefin based resins vacuum film, which is designed for use in the production of polyester / vinylester resin infused components for the wind energy, marine and general composite industries.

The product can be used in the production of epoxy resins prior to testing chemical resistance with specific resin.

It is particularly interesting due to its limited sensitivity to low humidity levels which are often problematic to predominantly nylon based films as the lack of moisture can reduce flexibility. This ensures consistent yearlong performance in all workshop environments.

SK2VF120-E1 can be embossed from one side with the «cracked ice» pattern. It allows for rapid air removal when placed under vacuum, eliminating need for separate layer of breather. The pattern has been developed to provide increased stiffness to assist in maintaining a breathable pattern. Bid width makes compacting large parts faster. For best results, place the raised side on top of a perforated release film against the laminate surface.

This product is used in various manufacturing processes of parts made of composite materials.



Pic.1 Embossing with «cracked ice» pattern

#### ► TECHNICAL DATA

Test method

Material type: Multilayer Color: Green



### SK2VF120-E1

### Embossed multilayer vacuum bagging film

Tensile strength at break: 39,3 MPa ASTM D882 Elongation at break: 460% ASTM D882 Tear strength: 1,5 N ISO1683-1

Maximum use temperature: 120°C

#### ► SIZES OF EMBOSSED FILMS

Thickness	Width	Folding shape
75	1400mm	SHT
75μm	3200mm	CF
90	1400mm	SHT
80μm	3200mm	CF

Shelf life: unlimited.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing, protected from direct sun and heat source.

#### **▶** NOTE

Embossing is available for film width from 140 cm until 320 cm Folding shapes: SHT - sheeting, CF – centerfold.

## TECHNICAL DATA SHEET

### SK2VF170-1

Vacuum film

Back to range

#### **▶** DESCRIPTION

SK2VF170-1 is a highly flexible multilayer nylon vacuum bagging film designed for processing of advanced composite structures and laminated security glass. This film is ideal for use in both oven and autoclave cures, up to a maximum recommended temperature of 170°C. Key benefits of this film are its high elongation and flexibility.

This product is used in various manufacturing processes of parts made of composite materials.

► TECHNICAL DATA Test method

Material type: Multilayer

Color: Green / Pink

Elongation at break: 380 % ASTM D882
Tensile strength at break: 50 MPa ASTM D882

Maximum use temperature: 180°C

#### ► SIZE

Thickness	Width	Folding shape
	100mm	
	200mm	
	300mm	
50um   100/	600mm	LFT- sheet
50μm ± 10%	900mm	
	1200mm	
	1500mm	
	2200mm	

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18



SK2VF170-1

Vacuum film

#### **▶** NOTE

Film available in thickness 75  $\mu$ m or thicker for glass lamination on demand Film of bigger sizes are produced under order in the preferred shape. All the other shapes, like CF-sheet can be produced on demand.

## TECHNICAL DATA SHEET

SK2VF170-2

Multilayer vacuum bagging film

Back to range

#### **▶** DESCRIPTION

SK2VF170-2 vacuum bagging film is a tough, high temperature resistant co extruded nylon-based material which is designed for use in the production of advanced composite structures such as wind turbine blades and nacelles, boat hulls and decks, plus other industrial structures. The film is ideal for use in both resin infusion and prepreg moulding applications and is resistant to all commonly used resin systems.

This film is not suitable for use in autoclave processing of composites.

#### ► TECHNICAL DATA

Test method

Material type: Multilayer Color: Blue/Yellow

Elongation at break: 405% ASTM D882 Tensile strength: 54MPa ASTM D882

Maximum use temperature: 177°C

Materials to avoid: Phenolic resins / Strong oxidizers

#### STANDARD SIZES

Thickness	Width	Length	Folding shape
	2000mm	250m	SHT or CF
	3000mm	250m	CF
	4000mm	150m	CF
50μm ± 10%	6000 mm	130m	LGS
	8000mm	75m	LGS
	10500mm	75m	LGS
	12000mm	75m	LGS
05 1 400/	2000mm	250m	SHT or CF
65μm ± 10%	3000mm	250m	CF

## TECHNICAL DATA SHEET

### SK2VF170-2

### Multilayer vacuum bagging film

	4000mm	150m	CF
	6000 mm	130m	LGS
	8000mm	75m	LGS
	10500mm	75m	LGS
	12000mm	75m	LGS
	2000mm	250m	SHT or CF
	3000mm	250m	CF
	4000mm	150m	CF
75µm ± 10%	6000 mm	130m	LGS
	8000mm	75m	LGS
	10500mm	75m	LGS
	12000mm	75m	LGS

Shelf life: unlimited.

Storage conditions: recommended temperatures between +5°C and +25°C in original packing, protected from direct sun and heat source.

#### **►** NOTE

Other lengths are available under request.

Other colors are available under request.

Width up to 12 meters wide. Film up to 4,6m wide supplied in sheet and V sheet. Widths 6m and above supplied gusseted, centrally slit.

Folding shapes: SHT- sheet, CF - centerfold, LGS- lay-gusseted slit. For more information, please read the technical information page: SK2VF\_Folding shape.

## TECHNICAL DATA SHEET

SK2VF170-3

Multilayer vacuum bagging film

Back to range

#### DESCRIPTION

SK2VF170-3 vacuum bagging film is a tough, high temperature resistant co extruded nylon-based material which is designed for use in the production of advanced composite structures such as wind turbine blades and nacelles, boat hulls and decks, plus other industrial structures. The film is ideal for use in both resin infusion and prepreg moulding applications and is resistant to all commonly used resin systems.

This film is not suitable for use in autoclave processing of composites.

#### ► TECHNICAL DATA

Test method

Material type: Multilayer

Color: Yellow

Elongation at break: 360% ASTM D882
Tensile strength: 40MPa ASTM D882

Maximum use temperature: 177°C

Materials to avoid: Phenolic resins / Strong oxidizers

### ► SIZE (STANDARD)

Thickness	Width	Folding shape
FOur	3000mm	CF
50μm	4000mm	CF
	3000mm	CF
65µm	4500mm	CF
	6000mm	LGS
75	4000mm	CF
75μm	6000mm	LGS

Shelf life: unlimited.

Storage conditions: recommended temperatures between +5°C and +25°C in original packing, protected from direct sun and heat source. Because it's structure and nature SK2VF170-3 is a quite stiff film and needs some conditioning before use at a reasonable level of humidity in the workshop.



SK2VF170-3

Multilayer vacuum bagging film

#### **▶** NOTE

Maximum width available 12 m (LGS).

Other widths and colors are available under request depending on the volume of order. This product can be recycled.

SK2VF180-1

Vacuum film

Back to range

#### DESCRIPTION

Transparent nylon bagging film with good elongation which could be used for cure cycle by temperatures up to 180°C.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Test method

Material type: Nylon Color: Clear

Elongation at break: 380%

ASTM D882 Tensile strength: 75 MPa ASTM D882

Recommended use temperature: 180°C Maximum use temperature: 200°C

Materials to avoid: Strong oxidizers

Maximum recommended pressure: 14 bar

#### ► SIZE

Please, check dimensional chart in this section for dimensional information.

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

#### ▶ NOTE

Available thickness: from 19µm till 75µm

Available widths till 2,3m tubular and 4,60m v-sheet.

By special request MOQ has to be ordered.

Film available as: SHT - sheeting, CF - centerfold, LFT - lay-flat tubing

## TECHNICAL DATA SHEET

### SK2VF200-1

Vacuum film

Back to range

#### DESCRIPTION

SK2VF200-1 – is soft transparent nylon bagging film with very good elongation for using in cure cycles by temperatures up to 200°C in autoclaves and ovens.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Test method

Material type: Nylon

Color: Pink/Green

Elongation at break: 400% ASTM D882
Tensile strength: 80MPa ASTM D882

Recommended use temperature: 200°C Maximum use temperature: 204°C Melting Point: 215° C

Materials to avoid: Phenolic resins/Strong oxidizers

#### ► SIZE

Please, check dimensional chart in this section for dimensional information.

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

#### ▶ NOTE

Other thicknesses and width are available on special order:

Thickness available: 50 and 75µm

Max. widths available:

3000mm LFT or 6000mm CF for thickness of 50  $\mu$ m. 4000mm LFT or 8000mm CF for thickness of 75  $\mu$ m.

By special request MOQ has to be ordered.

Film available as: SHT - sheeting, CF - centerfold, LFT - lay-flat tubing.



### SK2VF200-E1

#### **Embossed vacuum film**

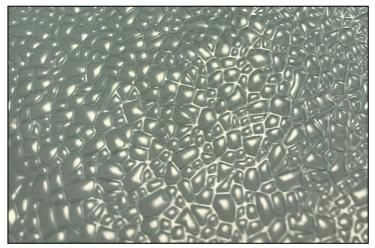
Back to range

#### DESCRIPTION

SK2VF200-E1 – is soft transparent nylon bagging film with very good elongation for using in cure cycles by temperatures up to 200°C in autoclaves and ovens.

SK2VF200-E1 can be embossed from one side with the «cracked ice» pattern. It allows for rapid air removal when placed under vacuum, eliminating need for separate layer of breather. The pattern has been developed to provide increased stiffness to assist in maintaining a breathable pattern. Bid width makes compacting large parts faster. For best results, place the raised side on top of a perforated release film against the laminate surface.

This product is used in various manufacturing processes of parts made of composite materials.



Pic.1 Embossing with «cracked ice» pattern

► TECHNICAL DATA Test method

Material type: Nylon

Color: Pink/Green

Elongation at break: 400 % ASTM D882
Tensile strength: 80 MPa ASTM D882

Recommended use temperature: 200°C Maximum use temperature: 204°C Melting Point: 215° C

Materials to avoid: Phenolic resins/Strong oxidizers

#### **► SIZE**

Thickness	Wide	Folding shape
50μm	1400mm	SHT



### **SK2VF200-E1**

### **Embossed vacuum film**

	3200mm	CF
75	1400mm	SHT
75μm	3200mm	CF

Please, check dimensional chart in this section for dimensional information.

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **►** NOTE

Embossing is available for film width from 140 cm until 320 cm. Film available as: SHT - sheeting, CF - centerfold.

## TECHNICAL DATA SHEET

### SK2VF200-2

Vacuum film

Back to range

#### DESCRIPTION

SK2VF200-2 – is very soft transparent nylon bagging film with high elongation for using in cure cycles by temperatures up to 204°C in autoclaves and ovens. It is recommended for bagging applications where a higher softness is required.

This product is used in various manufacturing processes of parts made of composite materials.

► TECHNICAL DATA Test method

Material type: Nylon Color: Pink

Elongation at break: 440 % ASTM D882
Tensile strength: 80 MPa ASTM D882

Maximum use temperature: 204°C Melting Point: 215° C

Materials to avoid: Phenolic resins/Strong oxidizers

#### **►** SIZE

Please, check dimensional chart in this section for dimensional information.

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

#### ▶ NOTE

Available thickness: 50 and 75µm

Maximum available widths:

3000mm LFT or 6000mm CF for thickness of 50  $\mu$ m. 4000mm LFT or 8000mm CF for thickness of 75  $\mu$ m.

By special request MOQ has to be ordered.

Film available as: SHT - sheeting, CF - centerfold, LFT - lay-flat tubing.

SK2VF200-3

Vacuum bagging film

Back to range

#### DESCRIPTION

SK2VF200-3 vacuum bagging film is a tough, high temperature resistant co extruded nylon-based material which is designed for use in the production of advanced composite structures such as wind turbine blades and nacelles, boat hulls and decks, plus other industrial structures. The film is ideal for use in both resin infusion and prepreg moulding applications and is resistant to all commonly used resin systems.

This film is not suitable for use in autoclave processing of composites.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Test method

Material type: Nylon

Blue Color:

Max elongation: 470 % ASTM D882 Tensile strength: 65 MPa ASTM D882

Maximum use temperature: 200°C

Density: 1,048 g/cm3

Thickness: 75 µm

Shelf life: unlimited.

Storage conditions: it is recommended to store at temperatures between +5°C and +25°C

in original packing.

#### ▶ NOTE

Up to 12 metres wide. Film up to 4.6m wide supplied in sheet and V sheet. Widths 6m and above supplied gusseted, centrally slit as standard.

## TECHNICAL DATA SHEET

### SK2VF204-1

Vacuum film

Back to range

#### DESCRIPTION

SK2VF204-1 – is nylon bagging film with high level of elongation for using in cure cycles by temperatures up to 204°C in autoclaves and ovens. It is recommended for bagging applications where a higher softness is required for production of parts with multiple contours.

#### **▶ TECHNICAL DATA**

Material type: Nylon
Color: Orange
Tensile strength: 69 MPa
Elongation at break: 450%
Maximum use temperature: 204°C

Materials to avoid: Phenolic resins/Strong oxidizers

#### ► SIZE

Thickness	Width	Length	Folding shape
50μm	3,56m	305m	CF - centrefold

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from +10°C till +30°C in

original packing.

#### ▶ NOTE

Maximum use temperature should be determined in actual process conditions. The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

SK2VF204-2

Vacuum film

Back to range

#### DESCRIPTION

SK2VF204-2 – is a low-cost nylon film that is ideal for use in high pressure autoclave cures, up to a maximum recommended temperature of 204°C. Key benefits of this film are its high elongation and softness in low humidity conditions.

#### ► TECHNICAL DATA

Material type: Nylon
Color: Violet
Tensile strength: 65 MPa
Elongation at break: 400%
Maximum use temperature: 204°C

Compatibility: Phenolic resins/Strong oxidizers

#### **► SIZE**

Thickness	Width	Length	Folding shape
50µm	3,00m	150m	CF
75µm	3,00m	150m	CF

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from +10°C till +30°C in

original packing.

#### **►** NOTE

Maximum use temperature should be determined in actual process conditions. The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.



SK2VF204-3

Vacuum film

Back to range

#### DESCRIPTION

SK2VF204-3 – is a coextruded nylon film with enhanced softness. The film is suitable for use with phenolic and epoxy resins. The recommended using temperarure with phenolic resins is up to 140°C.

#### ► TECHNICAL DATA

Material type:

Color:

Tensile strength:

Elongation at break:

Maximum use temperature:

Nylon

Sky Blue

90 MPa

380%

204°C

Compatibility: Phenolic resins

#### ► SIZE

Thickness	Width	Length	Folding shape
50µm	2,30m	305m	LFT
50µm	4,60m	305m	CF
75µm	2,00m	305m	LFT
75µm	4,00m	305m	CF

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from +10°C till +30°C in

original packing.

#### **► NOTE**

Maximum use temperature should be determined in actual process conditions.

The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.

Other sizes are available on special order.

## **TECHNICAL DATA SHEET**

### SK2VF205-1

Vacuum film

Back to range

#### DESCRIPTION

Transparent nylon bagging film is formulation of Nylon 6 and Nylon 66 resin. Film has very good elongation and could be used for cure cycle by temperatures up to 205°C.

This product is used in various manufacturing processes of parts made of composite materials.

► TECHNICAL DATA Test method

Material type: Nylon

Color: Green

Elongation at break: 400% ASTM D882 Tensile strength: 15.400-19.000 psi ASTM D882

Maximum use temperature: 205°C Melting Point: >240°

Materials to avoid: Phenolic resins/Strong oxidizers

#### **►** SIZE

Please, check dimensional chart in this section for dimensional information.

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

#### **▶** NOTE

Other thicknesses and width are available on special order:

Thickness: from 19µm till 76µm

Widths: 0,91m till 3,55m.

By special request MOQ has to be ordered.

Film available as: SHT - sheeting, CF - centerfold, LFT - lay-flat tubing.

## TECHNICAL DATA SHEET

### SK2VF205-2

Vacuum film

Back to range

#### DESCRIPTION

SK2VF205-2 is an embossed etched nylon bagging film recommended for advanced composite manufactured under vacuum moulding or infusion. The structure allows a good resin or air flow. By using this film you replace both: net bleeder and breather.

Perfect for debulking operation. This etched film has an excellent heat stability and very good mechanical properties. It is a styrene resistant film and non-porous. Do not use this film in direct contact with phenol resin.

This product is used in various manufacturing processes of parts made of composite materials.

► TECHNICAL DATA Test method

Material type: Nylon

Color: Transparent

Weight: 84g/m<sup>2</sup>

Elongation at break: 400% ASTM D882

Maximum use temperature: 205°C

Materials to avoid: Phenolic resins
Density: 1,12g/cm³

#### **► SIZE**

Thickness	Width	Length
75µm	1600mm	125m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing. Do not expose this film to the day light. Film is UV sensitive.



#### ▶ NOTE

Film available as: SHT – sheeting

Total thickness of film though embossing is 430µm.

## TECHNICAL DATA SHEET

### SK2VF220-1

Vacuum film

Back to range

#### DESCRIPTION

Unique nylon bagging film is formulation of Nylon 66 resin. Film provides superior chemical and thermal resistance and could be used for cure cycle by temperatures up to 220°C.

This product is used in various manufacturing processes of parts made of composite materials.

► TECHNICAL DATA Test method

Material type: Nylon Color: Blue

Elongation at break: 380% ASTM D882
Tensile strength: 12.500-17.300 psi ASTM D882

Maximum use temperature: 220°C Melting Point: 256°C

Materials to avoid: Strong oxidizers

#### **► SIZE**

Please, check dimensional chart in this section for dimensional information.

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

#### **▶** NOTE

Other thicknesses and width are available on special order:

Thickness: from 19µm till 76µm

Widths: 0,91m till 3,55m.

By special request MOQ has to be ordered.

Film available as: SHT - sheeting, CF - centerfold, LFT - lay-flat tubing

## TECHNICAL DATA SHEET

SK2VF230-1

### High temperature resistant nylon vacuum film

Back to range

#### DESCRIPTION

SK2VF230-1 – is a tough, high temperature resistant co extruded mono-nylon film designed for use in the production of advanced composite structures in aerospace industry. The film is resistant to most of common resins, as well as to bismaleimide resins.

This product is used in various manufacturing processes of parts made of composite materials.

► TECHNICAL DATA Test method

Material type: Nylon

Color: Light sky blue

Density: 1,12 g/cm³ internal
Elongation at break: 380% ASTM D638
Tensile strength: 75 MPa ASTM D882

Maximum use temperature: 230°C

#### ► SIZE

Thickness	Width	Length	Folding shape
50µm	1500mm	300m	SHT
75µm	1500mm	300m	SHT

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from +10°C until +30°C in original packing.

#### **► NOTE**

Other thicknesses and width are available on special order:

Thickness available: 50 and 75µm

Widths available: from 800mm to 1575mm LFT (1600mm till 3150mm open width).

Film available as: SHT - sheeting, CF - centerfolded and LFT - lay-flat tubing

## TECHNICAL DATA SHEET

SK2VF246-1

Vacuum film

Back to range

#### DESCRIPTION

SK2VF246-1 – is nylon bagging film that can be used when high temperature (up to 246°C) and high pressure are required. It could be used for cures with phenolic resins.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Test method

Material type: Nylon

Color: Orange

Elongation at break: 380% ASTM D882
Tensile strength: 75 N/mm² ASTM D882

Recommended working T: 218°C
Max. use T\*: up to 246°C
Melting point: 255°C

#### **►** SIZE

Please, check dimensional chart in this section for dimensional information.

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C and relative humidity of 50% (+/-10%) in original packing.

#### **▶** NOTE

Other thicknesses, width and colors are available on special order.

Thickness available: 50 and 75µm

Widths available: 1525mm LFT or 3050mm CF for thickness of 50 µm

\* Maximum use temperature should be determined in actual process conditions.

The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.

## **TECHNICAL DATA SHEET**

### SK2VF260-1

Vacuum film

Back to range

#### **▶** DESCRIPTION

SK2VF260-1 is a cast fluoropolymer vacuum film product that consists of a 100% PTFE film with a surface treatment/modification for adhesive bonding and/or lamination to various substrates. Several colors and several treatments are available.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type: PTFE Color: Yellow

Working temperature: -73°C to 260°C

Elongation at break: 400%
Tensile strength minimum: 2000 psi
Surface tension minimum: 40 dynes

#### **►** SIZE

Reference	Thickness	Width	Length
SK2VF260-1YW5012250	50μm	1,22 m	50 m
SK2VF260-1YW7512250	75µm	1,22 m	50 m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

#### **►** NOTE

Length of roll can be modified according to the client needs.

Maximum available width is 1,42m.

Available colors at request: Red, White, Blue, Tan

## TECHNICAL DATA SHEET

SK2VF400-1

Vacuum film

Back to range

#### DESCRIPTION

SK2VF400-1 — is polyimide vacuum film that provides excellent electrical, thermal, physical, and chemical properties over a wide temperature range from -265°C until +426°C making it superior for a wide array of applications. Product advantages include high electric strength, isotopic property, dimensional stability, scratch and abrasion resistance.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Test method

Material type: Polyimide Color: Amber

Elongation at break: 85%
Tensile strength: 25 Kgf/mm²
Density: 1.46 g/cm²

ASTM D882 ASTM D1505

ASTM D882

Max. use T\*: up to 426°C

#### **►** SIZE

Thickness	Width	Length
12µm	1570mm	152m
25µm	1570mm	152m
50µm	1570mm	152m
75µm	1570mm	152m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### ▶ NOTE

Maximum roll length 1524 m.

\* Maximum use temperature should be determined in actual process conditions.

The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

SK2VR145-1

### Multilayer vacuum release film

Back to range

#### DESCRIPTION

SK2VR145-1 is an economical self-releasing multilayer vacuum bagging film that can be used for cure cycles up to 145°C, which provide antiadhesion from most resins used in manufacturing in aerospace, marine and entertaining products industries. It can be used as vacuum bag and as release film. Due to multilayer structure the film has improved strength and heat resistance characteristics. It is suitable both for polyester, vinylester and epoxy resins.

#### ► TECHNICAL DATA

Test method

Material type: Multilayer Polyolefin + Nylon

Color: Light green

Thickness: 25 µm, 50 µm and 75µm

Density: 0,97 g/cm<sup>3</sup>

Elongation at break: 410% ASTM D882
Tensile strength (at break): 63 MPa ASTM D882

Maximum use temperature: 145°C

#### **► SIZE**

Thickness	Width	Folding shape
25µm	1500mm	SHT - sheet

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### ▶ NOTE

Perforation PJ is available for this film.

## TECHNICAL DATA SHEET

SK2VR160-1

Multilayer vacuum release film

Back to range

#### DESCRIPTION

SK2VR160-1 is a self-releasing multilayer vacuum bagging film designed for processing of hollow advanced composite structures where easy removal of the bag following the cure is desirable to as to avoid damage to the component. It can be used for manufacturing of hollow parts such as bicycle components, masts, fishing rods, etc. The film is ideal for use in both oven and autoclave cures, up to a maximum recommended temperature of 160°C. It is compatible with phenolic, polyester and epoxy resins.

#### **▶ TECHNICAL DATA**

Test method

Material type: Polyolefin nylon mixture

Color: Green Thickness: 70µm

Elongation at break: 445 % ASTM D882 Tensile strength (at break): 42 MPa ASTM D882

Maximum use temperature: 160°C

#### **► SIZE**

Thickness	Width	Folding shape
70µm	3000mm – 8000mm	LFT – lay-gusseted tube
70µm	860mm - 2500 mm	LGS - lay-gusseted slit

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **►** NOTE

By ordering of a narrow sleeve this film can supplied as LGT folding shape, thus simplifying laying in the closed contractions.

This film is also available in 30 micron thinness with PJ perforation. In this case the reference for ordering is SK2VR164-1GNPJ30150500SHT.

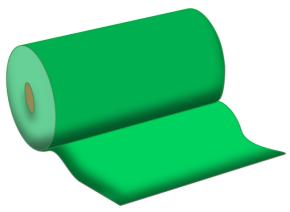


### Vacuum Film

Folding shape

Back to range

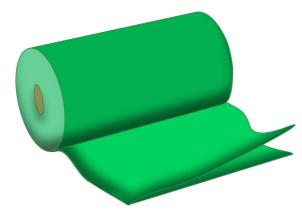


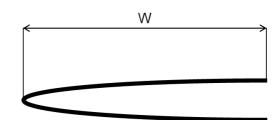




SHT: The width of the film indicated in the reference corresponds to W.

#### ► CF = centerfold

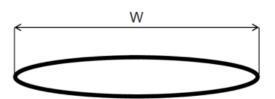




CF: The width of the film indicated in the reference corresponds to 2W.

### LFT = lay-flat tubing





LFT: The width of the film indicated in the reference corresponds to W.

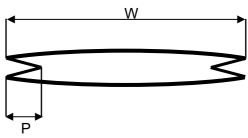


### Vacuum Film

Folding shape

### LGT = lay-gusseted tubing

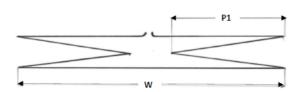




LGT: The width of the film indicated in the reference corresponds to 2W+4P.

### LGS = lay-gusseted slit

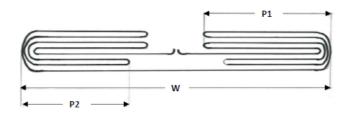
Depends on the thickness and width the film can be pleated in 3 possible ways:



w w

V1: The width of the film indicated in the reference corresponds to 2W+4P.

V2: The width of the film indicated in the reference corresponds to 2W+4P1.



V3: The width of the film indicated in the reference corresponds to 2W+4P1+2P2.



### **Vacuum Film**

### **Dimensional chart**

Back to range

### SHT (sheeting)

Data for film in 2 mil (50µm)

- a.a. ( - a.a.)					
Widths (W)		Length (L)		Weight roll appr .	
inch	m	ft	m	lb	kg
54	1,37	2000	610	106	48
60	1,52	1000	305	59	27
72	1,83	1000	305	70	32

# W

Data for film in 3 mil (75µm)

Widths (W)		Widths (W) Length (L)		Weig ap	
inch	m	ft	m	lb	kg
54	1,37	1500	457	119	54
60	1,52	1000	305	88	40
72	1,83	1000	305	106	48

### CF (centerfold)

Data for film in 2 mil (50µm)

Width	Widths (W)		(W) Length (L)		ht roll or .
inch	m	ft	m	lb	kg
96	2,44	1000	305	94	43
108	2,74	750	229	79	36
120	3,05	750	229	88	40
140	3,56	750	229	103	47



Data for film in 3 mil (75µm)

Widths (W)		Leng	th (L)	Weight roll appr .		
inch	m	ft	m	lb	kg	
96	2,44	1000	305	141	64	
108	2,74	750	229	119	54	
120	3,05	750	229	132	60	
140	3,56	750	229	154	70	

### LFT (lay-flat tubing)

Data for film in 2 mil (50µm)

Widths (W)		Length (L)		Weight roll appr .		
inch	m	ft	m	lb	kg	
27	0,69	1000	305	53	24	
36	0,92	1000	305	70	32	
48	1,22	1000	305	94	43	
54	1,37	1000	305	106	48	
60	1,52	1000	305	117	53	
70	1,78	750	229	103	47	



Data for film in 3 mil (75µm)

Widths (W)		Leng	th (L)	Weight roll appr .		
inch	m	m ft		lb	kg	
27	0,69	750	229	60	27	
36	0,92	750	229	79	36	
48	1,22	750	229	106	48	
54	1,37	750	229	119	54	
60	1,52	750	229	132	60	
70	1,78	750	229	154	70	

#### **► NOTE**

Other thicknesses and width are available on special order:

Thickness: from 19µm till 76µm. Width: from 0,91m till 3,56m

By special request MOQ has to be ordered.

## **TECHNICAL DATA SHEET**

### **Resin compatibility**

Vacuum bag film selection guide

Back to range

The following guideline is intended for reference only. STEVIK cannot control processing parameters or test all the materials available at the market. Risk reduction panel testing is strongly recommended before serial production. Please ask us for sample of vacuum film for testing. Film selection should be based on temperature requirement.

Compatible: V To avoid: X

	Max. use T°C	Resins					
Name		Ероху	Polyster & Vinylester	Phenolic	ВМІ	Cyanate Ester	Using in autoclave
SK2VF120-1	120°C	V	V	Х	Χ	Х	NO
SK2VF120-1E	120°C	V	V	Х	Х	Х	NO
SK2VR145-1	145°C	V	V	Х	Х	Х	NO
SK2VR160-1	160°C	V	V	Х	Х	Х	YES
SK2VF170-1	170°C	V	V	V	Х	Х	YES
SK2VF170-2	177°C	V	V	V	Х	Х	NO
SK2VF170-3	177°C	V	V	Х	V	V	NO
SK2VF180-1	180°C	V	V	V	Х	Х	YES
SK2VF195-1	180°C	V	Х	V	Х	V	YES
SK2VF200-1	200°C	V	V	Х	Х	Х	YES
SK2VF200-1E	200°C	V	V	Х	Х	Х	YES
SK2VF200-2	204°C	V	V	Х	Х	Х	YES
SK2VF200-3	200°C	V	V	Х	Х	Х	NO
SK2VF204-1	204°C	V	V	Х	V	V	YES
SK2VF204-2	204°C	V	V	Х	V	V	YES



## **Resin compatibility**

## Vacuum bag film selection guide

SK2VF204-3	204°C	V	V	V	V	V	YES
SK2VF205-1	205°C	V	V	Х	V	V	YES
SK2VF205-2	205°C	V	V	Х	V	V	YES
SK2VF220-1	220°C	V	V	V	V	V	YES
SK2VF230-1	230°C	V	V	V	Х	Х	YES
SK2VF230-2	230°C	V	V	V	Х	Х	YES
SK2VF246-1	246°C	V	V	V	V	V	YES
SK2VF246-2	246°C	V	V	V	V	V	YES
SK2VF260-1	260°C	V	V	V	V	V	YES
SK2VF400-1	400°C	V	V	V	V	V	YES



## **RELEASE FILMS**

### **RANGE**

Back to content

Name	Description	Max. use T°C	Elongation on break	Color
SK2RF120-1	Polyolefin low temperature release film	120°C	550%	Blue
SK2RF120-2	Cost effective release film for commercial and wind energy applications	120°C	560%	Orange
SK2RF155-1	Polyolefin release film for debulking and low temperature curing cycles	157°C	620%	Red
SK2RF155-2	Highly flexible polypropylene release film for resin infusion application	150°C	500%	Yellow
SK2RF200-1	Polymethylpenten (PMP) low cost high temperature release film	200°C	250%	Purple, light purple
SK2RF200-2	Cost effective release film for use on flat or single curvature mouldings	200°C	250%	Blue/Clear
SK2RF230-1	High performance fluoropolymer (ETFE) release film	260°C	350%	Blue Red
SK2RF260-1	High performance fluoropolymer (FEP) release film	260°C	320%	Red
SK2RF316-1	Fluoropolymer (PFTE) release film for mold released applications	316°C	400%	Blue
SK2RF400-1	Polyimide release film	400°C	85%	Amber
SK2VR145-1	Economical self-releasing multilayer vacuum bagging film	145°C	410%	Light green
SK2VR160-1	Self-releasing multilayer vacuum bagging film	160°C	445%	Green
Available perforations	-	-	-	-

## **TECHNICAL DATA SHEET**

### SK2RF120-1

Release film

Back to range

#### DESCRIPTION

SK2RF120-1 is low temperature release film designed for use in the processing of advanced composite structures in wet lay-up, resin infusions, oven and autoclave conditions.

It is compatible for use with a wide range of epoxy, polyester and vinylester resin systems, however we recommend small scale trials prior to committing to large infusion mouldings.

### **▶ TECHNICAL DATA**

Test method

Material type: Polyolefin

Color: Blue

Elongation at break: 550% ASTM D882
Tensile strength at break: 47 MPa ASTM D882

Maximum use temperature: 125°C

Density: 0,97g/cm<sup>3</sup> ASTM D1505

### **► SIZE**

Reference	Thickness	Width	Length	Folding shape	Perforation
SK2RF120-1BLNP28230250SHT	28µm	2,30m	250 m	SHT - Sheeting	Not perforated
SK2RF120-1BLNP28460250CF	28µm	4,60m	250 m	CF - Centrefold	Not perforated
SK2RF120-1BLPJ28150250SHT	28µm	1,50m	250 m	SHT - Sheeting	with PJ
SK2RF120-1BLPK28150250SHT	28µm	1,50m	250 m	SHT - Sheeting	with PK

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

#### ▶ NOTE

Maximum width of perforated film is 1,75 mm SHT Other roll sizes are available on special order. Perforations PJ and PK are available for this film.

### TECHNICAL DATA SHEET

### SK2RF120-2

Cost effective release film for commercial and wind energy applications

Back to range

### DESCRIPTION

SK2RF120-2 is a polyolefin release film for use in low temperature resin infusion processes. It is very soft, elastic and has a high performance and stay stable at temperature. Orange color of the film makes identification on the laminate more easy.

It is compatible for use with a wide range of epoxy, polyester and vinylester resin systems, however we recommend small scale trials prior to committing to large infusion mouldings.

#### ► TECHNICAL DATA

Test method

Material type: Polyolefin

Color: Orange

Elongation at break: 560% ASTM D882
Tensile strength at break: 48 MPa ASTM D882

Maximum use temperature: 120°C

Density: 0,953g/cm<sup>3</sup>

Thickness:  $25 \mu m \pm 10\%$  ISO 4593

### **► SIZE**

Reference	Thickness	Width	Length	Folding shape	Perforation
SK2RF120-2ORNP25145500SHT	25 µm	1,45m	500m	SHT sheeting	without
SK2RF120-2ORPK25145500SHT	25 µm	1,45m	500m	SHT sheeting	with PK
SK2RF120-2ORPL25145500SHT	25 µm	1,45m	500m	SHT sheeting	with PL

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**

Other roll sizes are available on special order.

Perforations PK and PL are available for this film.

## TECHNICAL DATA SHEET

### SK2RF155-1

Release film

Back to range

### DESCRIPTION

SK2RF155-1 is a mid-temperature range, highly flexible polypropylene based release film with very high elongation. It is suitable for use with low temperature epoxy and phenolic prepregs up to 157°C.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Polypropylene

Color: Red

Elongation at break: 620% ASTM D882
Tensile strength at break: 40 MPa ASTM D882

Density: 0,91 g/cm³
Maximum use temperature: 157°C

### **► SIZE**

Thickness	Width	Length
30µm	1500mm	400m
40µm	1500mm	400m
50µm	1500mm	400m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**

Perforations PJ. PK and PL are available for this film.

Perforated film maximum width is 1600 mm.

Other widths upon 2300 mm are available to specific order.

### TECHNICAL DATA SHEET

### SK2RF155-2

Release film

Back to range

### DESCRIPTION

SK2RF155-2 is a mid-temperature range, highly flexible polypropylene based release film. It is suitable for use with epoxy prepreg up to 150°C and may be used in resin infusion applications with wide range of resin systems however small scale trials are recommended before committing of large infusion mouldings.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: Polypropylene

Color: Yellow

Elongation at break: 500% ASTM D882
Tensile strength at break: 41 MPa ASTM D882

Density: 0,89 g/cm³
Maximum use temperature: 150°C

### ► SIZE

Thickness	Width	Length
30µm	1500 mm	250m
50µm	1500 mm	250m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**

Perforations PJ, PK and PL are available for this film.

Perforated film maximum width is 1600 mm.

Other thicknesses and colors are available to special order.

## TECHNICAL DATA SHEET

SK2RF200-1

Release film

Back to range

### DESCRIPTION

SK2RF200-1 – release film manufactured from Polymethylpentene (PMP) copolymer resin. Film offer manufacturers of composite products a material which will perform up to 200°C, depending on the specific application, for autoclave constructions.

Film is recommended for high temperature vacuum infusion process (monocomponent resins). This release film does not contaminate the composite. SK2RF200-1 is strong and has high elongation. This film can be used with contour surfaces or flat surfaces. SK2RF200-1 is a release film with all the resins. Film is available in two perforations.

### ► TECHNICAL DATA

Material Polymethylpenten Color Purple, light purple

Elongation: 250%
Tensile strenght: 24 MPa
Max.used temperature 200°C
Perforation NP

Aspect Faces lisses
Material Polymethylpenten

### DIMENSIONS

Thickness	Width	Length	Surface weight
30µ	1,5m	200m	25g/m <sup>2</sup>

### ORDER INFORMATION

Reference	Description
SK2RF200-1VTNP30150200SHT	Release film, PMP, purple, without perforation, T=200°C, 30 $\mu$ x 1,5 m x 200 m
SK2RF200-1VTPD30150200SHT	Release film, PMP, purple, with perforation PD, T=200°C, 30 µ x 1,5 m x 200 m
SK2RF200-1VTPE30150200SHT	Release film, PMP, purple, with perforation PE, T=200°C, 30 $\mu$ x 1,5 m x 200 m

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

## TECHNICAL DATA SHEET

### SK2RF200-2

Release film

Back to range

### DESCRIPTION

SK2RF200-2 – low cost release film manufactured from Polymethylpentene (PMP) copolymer. It has extremely good release properties and is ideal for use on flat or single curvature mouldings.

This film is available in non-perforated and perforated format with perforations: PJ, PK and PL.

### **▶ TECHNICAL DATA**

Testing method

Material PMP

Color Blue / clear

Elongation:  $250 \pm 10\%$  ASTM D882 Tensile strenght:  $26 \pm 10\%$  MPa ASTM D882

Recom. working temp.: 193°C Maximum use temperature: 200°C

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**

Standard film has thickness  $40\mu$  and are 1,31m wide. Other thicknesses and width available on request.

## TECHNICAL DATA SHEET

### SK2RF230-1

Release film

Back to range

### DESCRIPTION

RF230-1 is a release film with an excellent elongation and could be used on complex shapes. It is capable of cure temperatures up to 230°C.

This film will release from most resin systems and will provide a glossy finish when used directly on the laminate.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Test method

Material type: ETFE

Color: Blue, red

Elongation at break: 350% EN ISO 527-3 Tensile strength: 48 MPa EN ISO 527-3

Recommended working T: 230°C Maximum use T\*: 260°C

Materials to avoid: Compatible with most resin systems

Surface weight (theoretical): 45 g/m² for 25µm Yield 22,2 m²/Kg/25µm

#### ► SIZE

Thickness	Width	Length	Weight appr.
25µm	1530mm	153m	10,5 kg

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**

Other widths and colors are available on special order:

Thickness: from 15µm up to 250µm Max width as sheet: up to 2m

Max width as flat tube: up to 1,2m (2,4 m unfolded)

\* Maximum use temperature should be determined in actual process conditions. Product sustains short temperature spikes up to 260°C.

## TECHNICAL DATA SHEET

### SK2RF260-1

Release film

Back to range

#### DESCRIPTION

SK2RF260-1 is a temperature resistant release film with an excellent elongation and could be used on complex shapes. It is capable of cure temperatures up to 260°C. The special fluoropolymer gives to the product an outstanding resistance to chemical agents, so that this film will release from most resin systems and will provide a glossy finish when used directly on the laminate.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: FEP Color: Red

Elongation at break: 320% EN ISO 527-3 Tensile strength: 21 MPa EN ISO 527-3

Maximum use temperature: 260 °C

Materials to avoid: Compatible with most resin systems

Surface weight (theoretical): 54 g/m² for 25µm Yield: 18,5 m²/Kg/25µm

### **►** SIZE

Thickness	Width	Length	Weight
25µm	1530mm	153m	12,5 kg

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### ▶ NOTE

Other thicknesses and width are available on special order:

Thickness: from 0,013mm up to 0,250mm

Max width as sheet: up to 2000mm

Max width as flat tube: up to 1200mm (2400 mm unfolded)

## TECHNICAL DATA SHEET

### SK2RF316-1

Release film

Back to range

### DESCRIPTION

SK2RF316-1 is a cast fluoropolymer film product, made of PFTE film designed for mold released applications. It is capable of continuous service temperatures up to 316°C. The product can withstand periodic service temperature increases close or above its melting point. It has excellent release properties at any temperature within range and superior ability to conform to even the most challenging shapes.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: PTFE Color: Blue Width available: 1,22m Elongation at break: 400%

Thicknesses available: 25 and 50 µm Working temperature: -73°C to 316 °C

Melting point: 327°C

### **►** SIZE

Reference	Thickness	Width	Length
SK2RF316-1BL25122152	25µm	1,22 m	152m
SK2RF316-1BL5012276	50µm	1,22 m	76 m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

### **►** NOTE

Film available as: SHT - sheeting

Available colors at request: Red and Yellow

## TECHNICAL DATA SHEET

SK2RF400-1

Release film

Back to range

#### DESCRIPTION

SK2RF400-1 — is polyimide release film that provides excellent electrical, thermal, physical, and chemical properties over a wide temperature range from -265°C until +400°C in a lightweight package making it superior for a wide array of applications. Product advantages include high electric strength, isotopic property, dimensional stability, scratch and abrasion resistance.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Test method

Material type: Polyimide

Color: Amber

Elongation at break: 85% ASTM D882
Tensile strength: 25 Kgf/mm² ASTM D882
Density: 1.46 g/cm² ASTM D1505

Dielectric constant: 3.3

Heat shrinkage: 0.05 ASTM D5213-04

Recommended working T: 235°C

Max. use T\*: up to 400°C

### **► SIZE**

Thickness	Width	Length
12µm	1570mm	152m
25µm	1570mm	152m
50µm	1570mm	152m
75µm	1570mm	152m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.



SK2RF400-1

Release film

### **▶** NOTE

Maximum roll length 1524 m.

\* Maximum use temperature should be determined in actual process conditions. The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.



SK2VR145-1

Multilayer vacuum release film

Back to range

### **▶ DESCRIPTION**

SK2VR145-1 is an economical self-releasing multilayer vacuum bagging film that can be used for cure cycles up to 145°C, which provide antiadhesion from most resins used in manufacturing in aerospace, marine and entertaining products industries. It can be used as vacuum bag and as release film. Due to multilayer structure the film has improved strength and heat resistance characteristics. It is suitable both for polyester, vinylester and epoxy resins.

#### ► TECHNICAL DATA

Test method

Material type: Multilayer Polyolefin + Nylon

Color: Light green

Thickness: 25 µm, 50 µm and 75µm

Density: 0,97 g/cm<sup>3</sup>

Elongation at break: 410% ASTM D882
Tensile strength (at break): 63 MPa ASTM D882

Maximum use temperature: 145°C

#### **► SIZE**

Thickness	Width	Folding shape
25µm	1500mm	SHT - sheet

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.

### **▶** NOTE

Perforation PJ is available for this film.

## TECHNICAL DATA SHEET

SK2VR160-1

Multilayer vacuum release film

Back to range

### DESCRIPTION

SK2VR160-1 is a self-releasing multilayer vacuum bagging film designed for processing of hollow advanced composite structures where easy removal of the bag following the cure is desirable to as to avoid damage to the component. It can be used for manufacturing of hollow parts such as bicycle components, masts, fishing rods, etc. The film is ideal for use in both oven and autoclave cures, up to a maximum recommended temperature of 160°C. It is compatible with phenolic, polyester and epoxy resins.

### ► TECHNICAL DATA Test method

Material type: Polyolefin nylon mixture

Color: Green Thickness: 70µm

Elongation at break: 445% ASTM D882
Tensile strength (at break): 42 MPa ASTM D882

Maximum use temperature: 160°C

### **► SIZE**

Thickness	Width	Folding shape
70µm	3000mm – 8000mm	LFT – lay-gusseted tube
70µm	860mm - 2500 mm	LGS - lay-gusseted slit

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **►** NOTE

By ordering of a narrow sleeve this film can supplied as LGT folding shape, thus simplifying laying in the closed contructions.

This film is also available in 30 micron thinness with PJ perforation. In this case the reference for ordering is SK2VR164-1GNPJ30150500SHT.



## **Available perforations**

Release film

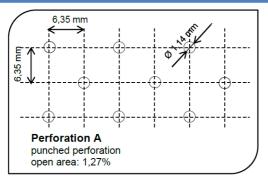
Back to range

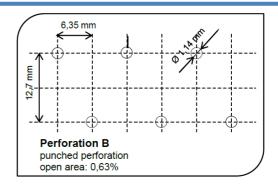
Perforation	Ø Hole	X (Width direction)	Y (Roll direction)	Туре	Open area	Style
PA	1,14mm	6,35mm	6,35mm	staggered	1,27%	punched perforation
PB	1,14mm	6,35mm	12,70mm	staggered	0,63%	punched perforation
PC	0,38mm	6,35mm	6,35mm	staggered	0,14%	punched perforation
PD	0,50mm	3,57mm	7,00mm	staggered	3,45%	hot perforation
PE	0,50mm	7,14mm	14,00mm	staggered	0,86%	hot perforation
MP	0,15mm	2,00mm	2,00mm	staggered	0,22%	hot perforation
MU	0,09mm	4,00mm	2,00mm	staggered	0,078%	hot perforation
PF	1,14mm	50,8mm	50,8mm	staggered	0,04%	punched perforation
PG	0,38mm	203mm	203mm	straight	0,0003%	punched perforation
PH	1,14mm	89mm	89mm	staggered	0,013%	punched perforation
PI	0,38mm	76mm	76mm	staggered	0,0019%	punched perforation
PJ	0,4mm	5mm	10mm	staggered	0,126%	hot perforation
PK	0,6mm	3,5mm	2,5mm	staggered	1,616%	hot perforation
PL	0,3mm	3,5mm	2,5mm	staggered	0,404%	hot perforation

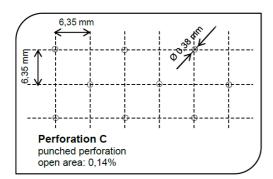


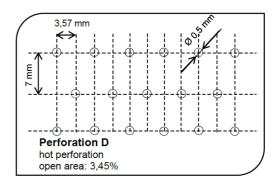
## **Available perforations**

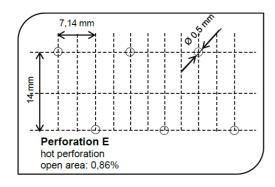
Release film

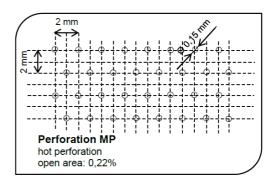


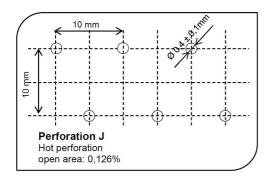


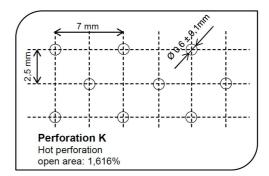








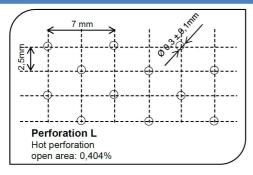






## Available perforations

Release film





## **SEALANT TAPES**

### **RANGE**

Back to content

Name	Description	Max. use T°C	Color
SK2ST120-1	Economical sealant tape for debulking and low temperature processes	120°C	Black
SK2ST130-1	Vacuum bagging sealant tape for debulking and low temperature applications.	130°C	Light grey
SK2ST150-1	Sealant tape for medium temperature autoclave processes, for long duration cycles	150°C	Mustard
SK2ST180-1	Efficient vacuum sealant tape for middle temperature applications	180°C	White/ Orange/Black
SK2ST200-1	Efficient multifunctional sealant tape	204°C	Yellow
SK2ST200-2	Standard vacuum bag sealant tape for metal and composite tools	204°C	Off white
SK2ST205-1	Vacuum bagging sealant tape with high tack	205°C	Off white
SK2ST205-2	Multi-purpose sealant tape with high tack	205°C	Grey
SK2ST205-3	Common sealant tape for vacuum bagging	205°C	Mustard
SK2ST210-1	Sealant tape with high tack	210°C	Yellow
SK2ST230-1	High temperature vacuum bagging sealant tape	230°C	White
SK2ST230-2	Economical high temperature sealant tape	230°C	Red brown
SK2ST371-1	Tape for sealing of vacuum bag in processes with very high temperature	371°C	Green
SK2ST427-1	Tape for sealing of vacuum bag in processes with ultra-high temperature	427°C	Brown

## TECHNICAL DATA SHEET

### SK2ST120-1

**Sealant Tape** 

Back to range

### DESCRIPTION

SK2ST120-1 is economical sealant tape for vacuum bagging applications where cost is a primary consideration. This tape maintains a good vacuum seal for vacuum bagging applications from room temperature to 120°C. It removes easily from all types of tools without residues.

It is ideally suited for debulking operation and resin infusion processes.

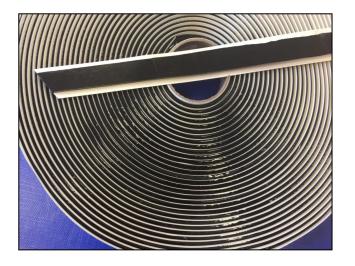
For clean removal, it is recommended to strip the tape from the mould surface once it has cooled down to room temperature.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material: Synthetic rubber

Color: Black Maximum use temperature: 120°C



#### **►** SIZE

Thickness	Width	Length	Packing
3mm	12mm	7,5m	40 rolls per case

Shelf life: 12 months.

Storage conditions: it is recommended to store flat in original packing at temperatures between +10°C and +30°C.

### **► NOTE**

## TECHNICAL DATA SHEET

SK2ST120-1

**Sealant Tape** 

All surfaces should be clean, dry and free from grease and loose materials. Apply directly from the reel onto one surface and press sufficiently along its whole length to achieve good initial adhesion. Remove backing paper at the joint between the tapes, place the second tape overlapping to the first and push firmly to seal across the joint. After placing the tape onto the surface remove backing paper, lay vacuum film on the strip. Apply pressure by hand or roller SK3ROL-1 to ensure tight connection. The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

SK2ST130-1

**Sealant Tape** 

Back to range

### **▶ DESCRIPTION**

SK2ST130-1 is sealant tape for applications at room temperature and up to 130 °C. It has been designed for ply compaction and debulking operations. This sealant tape provides excellent adhesion to films and tool surfaces and allows multiple sealing without loss of adhesive performance or vacuum tightness.

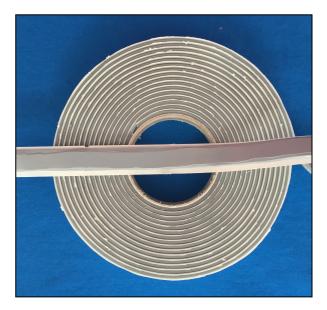
Apply on clean and dry tool silicon coated side paper on top. Remove the silicon paper and press the bagging film on the tapes. Roll-press and compress the sealant in order to ensure adherence and quality of the vacuum. This product is used in various manufacturing processes of parts made of composite materials.

Excellent resistance to water and water vapors and adhesion to clean, dry surfaces. This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

Material: Synthetic polymer butyl based

Color: Light grey Maximum use temperature: 130°C



### **► SIZE**

Thickness	Width	Length	Packing
3mm	12mm	15m	22roll/cs

Shelf life: 12 months.



SK2ST130-1

**Sealant Tape** 

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing. Not recommended to store by temperature over 30°C.

### **▶** NOTE



SK2ST150-1

**Sealant Tape** 

Back to range

### DESCRIPTION

SK2ST150-1 is economical sealant tape for vacuum bagging applications where cost is a primary consideration. This tape maintains a good vacuum seal for vacuum bagging applications from room temperature to 150°C. It removes easily from all types of tools without residues.

It is ideally suited for autoclave processes and for long duration cycles.

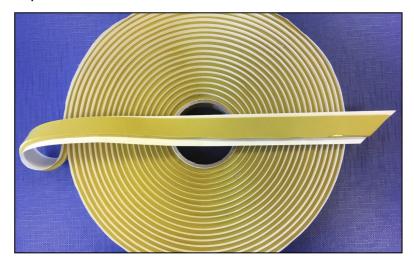
For clean removal, it is recommended to strip the tape from the mould surface once it has cooled down to room temperature.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material: Synthetic rubber

Color: Yellow Maximum use temperature: 150°C



#### **► SIZE**

Thickness	Width	Length	Packing
3mm	12mm	7,5m	40 rolls per case

Shelf life: 12 months.

Storage conditions: it is recommended to store flat in original packing at temperatures between +10°C and +30°C.

### **► NOTE**

## TECHNICAL DATA SHEET

SK2ST150-1

**Sealant Tape** 

All surfaces should be clean, dry and free from grease and loose materials. Apply directly from the reel onto one surface and press sufficiently along its whole length to achieve good initial adhesion. Remove backing paper at the joint between the tapes, place the second tape overlapping to the first and push firmly to seal across the joint. After placing the tape onto the surface remove backing paper, lay vacuum film on the strip. Apply pressure by hand or roller SK3ROL-1 to ensure tight connection. The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.

## **TECHNICAL DATA SHEET**

SK2ST180-1

**Sealant Tape** 

Back to range

### DESCRIPTION

SK2ST180-1 is a cost effective vacuum bag sealant tape for room and medium-high temperature applications till 180°C. SK2ST180-1 has been specially formulated to provide excellent tack, firm feel, good clean-up. For clean removal, it is recommended to strip the tape from the mold surface once it has cooled down to room temperature. This product also can be used in oven and autoclave.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material: Synthetic rubber Color: White / orange / black

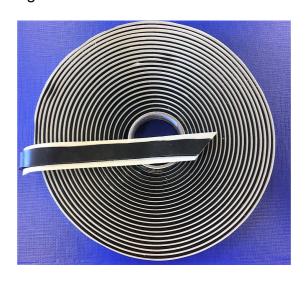
Maximum use temperature: 180°C

#### **► SIZE**

Thickness	Width	Length
3mm	12mm	7,5m

Shelf life: 12 months with the respect to the storage conditions.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C stored flat in original packing.





SK2ST180-1

**Sealant Tape** 

### **► NOTE**

All surfaces should be clean, dry and free from grease and loose materials. Apply directly from the reel onto one surface and press sufficiently along its whole length to achieve good initial adhesion. Remove backing paper and offer other surface to the tape and push firmly to seal across the joint.

## TECHNICAL DATA SHEET

SK2ST200-1

**Sealant Tape** 

Back to range

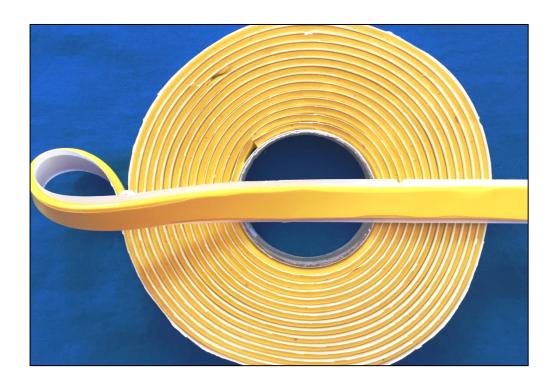
### **▶** DESCRIPTION

SK2ST200-1 is a sealant tape developed for vacuum bagging operations. This product has been formulated to outperform all tapes in its class. With aggressive initial tack, it will maintain an air-tight seal during the cure cycle, yet strip clean from the tool, with virtually no trace to residue. SK2ST200-1 provides easy de-bagging and minimal to no clean-up between production cycles. It exhibits these excellent usage and release characteristics from composite and metal tools, in both oven and autoclave applications.

This product is used in various manufacturing processes of parts made of composite materials.

The product has the following advantages:

- Easy to apply;
- Ideal for oven and autoclave cure;
- Excellent release for composite tooling;
- Uses include: debulking/compacting, envelope bagging, resin damming or as pressure strip;
- Maintains adhesion during low temperature cycling;
- Stripes clean from tool leaving no residue;
- Good adhesion to various films and tool surfaces;
- Non hazardous.



## TECHNICAL DATA SHEET

SK2ST200-1

**Sealant Tape** 

### Instructions for application:

The surface should be clean, dry, smooth and dust-free.

- Place the stripe into the surface avoiding air bubbles with release paper on top;
- Remove the easy peel release film;
- Lay the film on top of the strip;
- Apply pressure by hand and/or roller SK3ROL-1 to ensure tight connection;

It is recommended to strip below 60°C to minimize the parts from becoming warped. The tape can be stripped without leaving a residue on metal and composite tool surfaces that have been cooled to room temperature.

### ► TECHNICAL DATA

Material: Synthetic polymer butyl based

Color: Yellow Solids: 100%

Hardness shore A 23 index ASTM 2240 Loop Tack Test: 24,5N/25mm ASTM D 1695 Probe Tack Test: 4N ASTM D 2979

Application temperature: 5°C/50°C Recommended use T: 200°C Maximum use T: 204°C

### **► SIZE**

Thickness	Width	Length
3mm	12mm	9m

Shelf life: 12 months.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing; if stored at a temperature between +10°C and +30°C the product must be used within 6 months; if stored at a temperature between +10°C and +25°C the product must be used within 12 months. The product is not affected by frost.

### **► NOTE**

The quality and characteristics of materials remain unaltered for a very long time. The product must be stored in a dry, covered place.

## TECHNICAL DATA SHEET

SK2ST200-2

Standard vacuum bag sealant tape for metal and composite tools

Back to range

#### DESCRIPTION

SK2ST200-2 is standard off-white sealant tape for vacuum bagging operations. It has excellent tack, great clean-up, and is usable up to 204°C on composite and metal tools, in both oven and autoclave applications.

This product is used in various manufacturing processes of parts made of composite materials.

The product has the following advantages:

- Easy to apply;
- Maintains adhesion during low temperature cycling;
- Stripes clean from tool leaving no residue;
- Good adhesion to various films and tool surfaces;
- Non hazardous.



Instructions for application:

The surface should be clean, dry, smooth and dust-free.

- Place the stripe into the surface avoiding air bubbles with release paper on top;
- Remove the easy peel release film:
- Lay the film on top of the strip;
- Apply pressure by hand and/or roller SK3ROL-1 to ensure tight connection;



SK2ST200-2

Standard vacuum bag sealant tape for metal and composite tools

It is recommended to strip from tool surfaces that have been cooled to room temperature.

### **▶ TECHNICAL DATA**

Material: Synthetic polymer butyl based

Color: Off-white Maximum use temperature: 204°C

### **► SIZE**

Thickness	Width	Length
3mm	12mm	9m

Shelf life: 12 months.

Storage conditions: If stored at a temperature between +5°C and +30°C, the product must be used within 6 months; if stored at a temperature between +5°C and +25°C the product must be used within 12 months. The product is not affected by frost.

#### ▶ NOTE

The quality and characteristics of materials remain unaltered for a very long time. The product must be stored in a dry, covered place.

## TECHNICAL DATA SHEET

SK2ST205-1

**Sealant Tape** 

Back to range

### DESCRIPTION

ST205-1 is a butyl based, high tack sealant tape for vacuum bagging with excellent cohesive and adhesive properties. It will cure slightly when heat is applied. Sealant tape can be used on metal and composite tools.

Apply on clean and dry tool silicon coated side paper on top. Remove the silicon paper and press the bagging film on the tapes. Roll-press and compress the sealant in order to ensure adherence and quality of the vacuum. This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material: Synthetic polymer butyl based

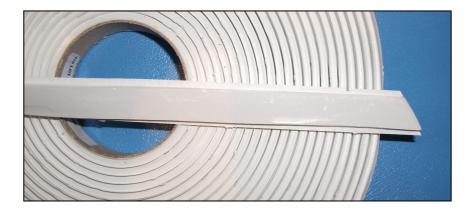
Color: Off white Maximum use temperature: 205°C

### **► SIZE**

Thickness	Width	Length	Packing
3mm	12mm	9m	22roll/cs

Shelf life: 12 months.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing. Not recommended to store by temperature over 30°C.



### **► NOTE**

### TECHNICAL DATA SHEET

SK2ST205-2

**Sealant Tape** 

Back to range

### DESCRIPTION

ST205-2 is an economical sealing tape with high tack for vacuum bagging. It has good tack and clean-up properties.

Apply on clean and dry tool silicon coated side paper on top. Remove the silicon paper and press the bagging film on the tapes. Roll-press and compress the sealant in order to ensure adherence and quality of the vacuum. This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material: Synthetic polymer butyl based

Color: Grey Maximum use temperature: 205°C

### **► SIZE**

Thickness	Width	Length	Packing
3mm	12mm	9m	22roll/cs

Shelf life: 12 months.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing. Not recommended to store by temperature over 30°C.



### **► NOTE**

## TECHNICAL DATA SHEET

SK2ST205-3

**Sealant Tape** 

Back to range

### DESCRIPTION

SK2ST205-3 is a butyl based, high tack sealant tape for vacuum bagging with excellent cohesive and adhesive properties. It will cure slightly when heat is applied. Sealant tape can be used on metal and composite tools.

Apply on clean and dry tool silicon coated side paper on top. Remove the silicon paper and press the bagging film on the tapes. Roll-press and compress the sealant in order to ensure adherence and quality of the vacuum. This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material: Synthetic polymer butyl based

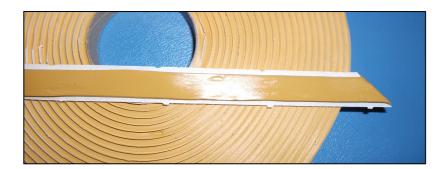
Color: Mustard Maximum use temperature: 205°C

### **► SIZE**

Thickness	Width	Length	Packing
3mm	12mm	9m	22roll/cs

Shelf life: 12 months.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing. Not recommended to store by temperature over 30°C.



### **► NOTE**

## TECHNICAL DATA SHEET

SK2ST210-1

Sealant Tape with high tack

Back to range

### **▶ DESCRIPTION**

SK2ST210-1 is an economical multi-purpose sealant tape with high tack. It removes easily from metal or composite tools. Usable up to 210°C cures in oven or autoclave.

For clean removal, it is recommended to strip the tape from the mold surface once it has cooled down to room temperature.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material: Synthetic rubber

Color: Yellow Maximum use temperature: 210°C



### **►** SIZE

Thickness	Width	Length	Packing
3mm	12mm	7,5m	40 rolls / case

Shelf life: 12 months with the respect to the storage conditions.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C stored flat in original packing.



SK2ST210-1

Sealant Tape with high tack

### **▶** NOTE

All surfaces should be clean, dry and free from grease and loose materials. Apply directly from the reel onto one surface and press sufficiently along its whole length to achieve good initial adhesion. Remove backing paper and offer other surface to the tape and push firmly to seal across the joint.

### TECHNICAL DATA SHEET

SK2ST230-1

**Sealant Tape** 

Back to range

#### DESCRIPTION

ST230-1 is a butyl based, high tack sealant tape for high temperature cure cycles up to 230°C. This product consists of high-performance sealing butyl rubber compound. With aggressive initial tack, the sealant tape maintains an air-tight seal during the cure cycle and the tool clean from the strip, with virtually no trace of residue. It provides easy debagging and minimal or no clean-up between production cycles.

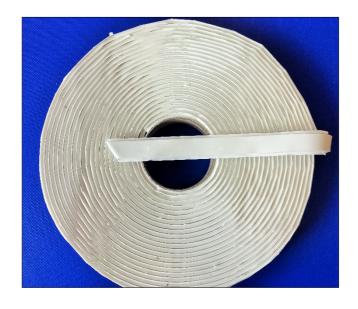
This product is used in various manufacturing processes of parts made of composite materials.

The product has the following advantages:

- Easy to apply
- Ideal for oven and autoclave cure
- Excellent release for composite tooling
- Uses include: debulking/compacting, envelope bagging, resin damming or as pressure strip
- Maintains adhesion during low temperature cycling
- Stripes clean from tool leaving no residue
- Good adhesion to various films and tool surfaces
- Non hazardous

Instructions for application:

The surface should be clean, dry, smooth and dust-free.





SK2ST230-1

**Sealant Tape** 

- Place the stripe into the surface avoiding air bubbles with release paper on top
- Remove the easy peel release film
- Lay the film on top of the strip
- Apply pressure by hand or roller to ensure a positive vacuum

It is recommended to strip below 60°C to minimize the parts from becoming warped. The tape can be stripped without leaving a residue on metal and composite tool surfaces that have been cooled to room temperature.

#### **► TECHNICAL DATA**

Material: Synthetic polymer butyl based

Color: White Solids: 100%

Probe Tack Test: 4N ASTM D 2979

Application temperature range: 10°C/35°C Maximum use temperature: 230°C

#### **► SIZE**

Thickness	Width	Length
3mm	12mm	15m

Shelf life: 12 months.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing. If stored at a temperature between +10°C and +30°C, the product must be used within 6 months; if stored at a temperature between +10°C and +25°C the product must be used within 12 months. The product is not affected by frost.

#### **► NOTE**

The quality and characteristics of materials remain unaltered for a very long time.

## TECHNICAL DATA SHEET

SK2ST230-2

### **Economical high temperature sealant tape**

Back to range

#### DESCRIPTION

SK2ST230-2 is an economical multi-purpose sealant tape with high tack. It removes easily from metal or composite tools. Usable up to 230°C cures in oven or autoclave. For clean removal, it is recommended to strip the tape from the mold surface once it has cooled down to room temperature.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material: Synthetic rubber Color: Red brown Maximum use temperature: 230°C



#### **► SIZE**

Thickness	Width	Length	Packing
3mm	12mm	7,5m	40 rolls / case

Shelf life: 12 months with the respect to the storage conditions.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C stored flat in original packing.

#### **►** NOTE

All surfaces should be clean, dry and free from grease and loose materials. Apply directly from the reel onto one surface and press sufficiently along its whole length to achieve good initial adhesion. Remove backing paper and offer other surface to the tape and push firmly to seal across the joint.



SK2ST371-1

**Sealant Tape** 

Back to range

#### **▶** DESCRIPTION

SK2ST371-1 is the high temperature silicone base vacuum bag sealant tape with excellent tack and tenacious bond to vacuum film SK2VF400-1 after cure. It is used in conjunction with polyimide film to give positive seal during the fabrication of composites and bullet proof glass at extreme heat cycles. The product distinguishes itself with its outstanding performance in autoclave applications by tenaciously bonding to high temperature resistance films and its clean release from tool surfaces without residue. The product is used in a broad temperature range of 177°C to 371°C.

This product is used in various manufacturing processes of parts made of composite materials.

#### Product advantages:

- Easy to apply at any surfaces;
- Strong modulus during heating to resist flow and provide tight seal;
- Strips clean from various tools surfaces both warm and cold;
- Excellent resistance to common resins used in the manufacturing of composites;
- Thermally stable, resist reversion at elevated temperatures;



#### **► TECHNICAL DATA**

Test method:

Material: Silicone based

Color: Green
Percent solid: 100%
Density: 1,20 g/cm³

Coefficient of thermal expansion: 340 x 10<sup>-6/C</sup>

Softness at RT: 120-140 (0,1 mm) ASTM D217

Shore A Hardness

after cure 177°C: 45



SK2ST371-1

**Sealant Tape** 

Application temperature range: 7°C-37.8°C Max. used T: 371°C

#### APPLICATION INSTRUCTION

Apply by hand to a clean dry surface with release film on top. When the sealant is in position remove the release film and while laying the film on top. Apply pressure by hand on the top of the film and sealant to obtain intimate contact with the surface and to ensure positive seal. The film may be stripped off the tool warm or cold after the cure cycle without leaving a residue. It is recommended to strip below 65°C to minimize or reduce the parts from becoming warped.

#### **► SIZE**

Thickness	Width	Length
3mm	12mm	7,62m

Shelf life: 12 months.

Storage conditions: if stored below +27°C the product must be used within 13 months. Do not store cartons on end, keep flat.

#### **► NOTE**

Minimum order quantity is one box.

Packing: 40 rolls per box, weight 14,3 kg.

## TECHNICAL DATA SHEET

SK2ST427-1

**Sealant Tape** 

Back to range

#### DESCRIPTION

SK2ST427-1 is designed to withstand extreme temperature and resist flow under high pressure. The product is formulated with unique silicone to withstand the harshest vacuum bag cycle. The product has excellent tack and tenacious bond to vacuum film SK2VF400-1 after cure. It is used in conjunction with polyimide film to give positive seal during the fabrication of composites and bullet proof glass at extreme heat cycles. SK2ST427-1 distinguishes itself with its outstanding performance in autoclave applications by tenaciously bonding to high temperature resistance films and its clean release from tool surfaces without residue. This is accomplished over a broad temperature range of 171°C to 427°C. This tape is also suitable for mid-range temperatures for extended period of time.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Test method:

Material: Silicone based Color: Brown (Green)

Max. used T: 427°C

#### **►** SIZE

Thickness	Width	Length
3mm	12mm	7,62m

Shelf life: 12 months.

Storage conditions: if stored below +27°C the product must be used within 13 months. Do

not store cartons on end, keep flat.

#### ▶ NOTE

Minimum order quantity is one box of: 40 rolls per box, weight 14,3 kg.



## **RELEASE FABRICS**

### **RANGE**

Back to content

Name	Description	Max. use T°C	% PTFE	Thickness	Color
SK2RE260-1	Coated glass fabric, porous	260°C	38%	40µm	Brown
SK2RE260-2	Coated glass fabric, porous	260°C	29%	60µm	Brown
SK2RE260-3	Coated glass fabric, not porous	260°C	68%	75µm	Brown
SK2RE260-4	Coated glass fabric, not porous	260°C	67%	150µm	Brown

## TECHNICAL DATA SHEET

### SK2RE260-1

### Porous PTFE coated release fabric

Back to range

#### DESCRIPTION

PTFE coated very light fibreglass fabric, which provides controlled porosity and release from all conventional resin systems.

Product will allow excess resin, volatiles and trapped air to escape into the breather during cure.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Fibre type:

Color:

Weight:

Thickness:

Maximum use temperature:

PTFE content:

Glass

Brown

40g/m²

40µm

260°C

38%

#### **►** SIZE

Thickness	Width	Length
40 μm	1000mm	100m

Shelf life: 24 months

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C

in original packing.

## TECHNICAL DATA SHEET

### SK2RE260-2

### Porous PTFE coated release fabric

Back to range

#### DESCRIPTION

PTFE coated fibreglass fabric, which provides controlled porosity and release from all conventional resin systems.

Product will allow excess resin, volatiles and trapped air to escape into the breather during cure.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Fibre type:

Color:

Weight:

Thickness:

Maximum use temperature:

PTFE content:

Glass

Brown

68g/m²

60µm

260°C

#### **►** SIZE

Thickness	Width	Length
60µm	1000mm	100m

Shelf life: 24 months

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### **▶** NOTE

Release fabric is also in 2000mm width available.



SK2RE260-3

### Non porous PTFE coated release fabric

Back to range

#### DESCRIPTION

PTFE coated fibreglass fabric, is characterized by a highly consolidated of coating and smooth surface, resulting in excellent release from all conventional resin systems and insulation properties.

Non porous product will retain resin and provide extremely smooth surface.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Fibre type:

Color:

Weight:

Thickness:

Maximum use temperature:

PTFE content:

Glass

Brown

155g/m²

75µm

260°C

68%

#### **►** SIZE

Thickness	Width	Length
75µm	1000mm	100m

Shelf life: 24 months

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C

in original packing.



SK2RE260-4

### Non porous PTFE coated release fabric

Back to range

#### DESCRIPTION

PTFE coated heavy fibreglass fabric, is characterized by a highly consolidated of coating and smooth surface, resulting in excellent release from all conventional resin systems and insulation properties.

Non porous product will retain resin and provide extremely smooth surface.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Fibre type:

Color:

Weight:

Thickness:

Maximum use temperature:

PTFE content:

Glass

Brown

315g/m²

150µm

260°C

67%

#### **►** SIZE

Thickness	Width	Length
150µm	1000mm	100m

Shelf life: 24 months

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C

in original packing.



## **PEEL PLIES**

### **RANGE**

Back to content

Polyester Peel Ply is specially designed for structural bonding by production of high performance composite parts.

Name	Description	Max. use T°C	Color	Stripes	Weight
SK2PP200-4	Economic peel ply for resin infusion, autoclave or hand lay-up processes	205°C	White	Black	80 g/m²
SK2PP 200-2	Peel ply for resin infusion or hand lay-up processes	205°C	White	Blue	85 g/m²
SK2PP 200-3	Peel ply with superior strength	205°C	White	Blue	92 g/m²
SK2PP180-1	Unique peel ply for premier and secondary structural bonding	180°C	White	-	102 g/m²



## **PEEL PLIES**

## **RANGE**

Back to content

Polyamide Peel Ply is more purpose material for standard application.

Name	Description	Max. use T°C	Color	Stripe s	Weight
SK2PP230-3	High temperature tight woven peel ply	230°C	White	-	60 g/m²
SK2PP190-1	Very light peel ply for using with epoxy, vinylester and polyester resins	190°C	White	Red	64 g/m²
SK2PP230-1	Thermoset peel ply for high temperature processes	230°C	White	Red	82 g/m²
SK2PP185-4	Standard quality peel ply for application with epoxy and polyester resins	185°C	White	Blue / Red	83 g/m²
SK2PP170-1	Economic polyamide peel ply for resin infusion or hand lay-up processes	170°C	White	Black	85 g/m²
SK2PP220-1	Efficient peel ply for resin infusion, autoclave or hand lay-up processes	220°C	White	Red	85 g/m²
SK2PP220-3	Peel ply for resin infusion, autoclave or hand lay-up processes	220°C	Green	-	85g/m²
SK2PP220-6	Polyamide peel ply for resin infusion, autoclave curing and hand lay-up, with adhesive cating, on liner	230°C	White	Red	85g/m²
SK2PP185-1	High tenacity peel ply	185°C	Pink	Blue	90 g/m²
SK2PP190-3	High tenacity polyamide peel ply for epoxy, vinylester and polyester resins	205°C	Off-white	-	90 g/m²
SK2PP220-4	Economic peel ply for resin infusion, autoclave or hand lay-up processes	205°C	White	Black	80 g/m²
SK2PP220-2	High quality polyamide peel ply or infusion, autoclave or hand molding	220°C	White	Red or Green	95 g/m²
SK2PP185-3	Peel ply for application with epoxy, vinylester and polyester resins.	185°C	White	Blue	104 g/m²
SK2PP180-3	Tight woven peel ply for application with epoxy, vinylester and polyester resins.	180°C	Pink	-	107 g/m²
SK2PP250-1	Heavy duty peel ply for high temperature processes	250°C	White	-	110 g/m²



## **PEEL PLIES**

### **RANGE**

Back to content

### Polyamide Peel Ply with release coating

Name	Description	Max. use T°C	Color	Stripe s	Weight
SK2PP205-1	Peel ply with silicone coating for application with epoxy and polyester resins	204°C	Yellow	1	51 g/m²
SK2PP230-2	High temperature tightly woven peel ply with silicone coating	230°C	White / Yellow / Blue	-	60g/m²

### TECHNICAL DATA SHEET

SK2PP200-4

Peel Ply

Back to range

#### **▶ DESCRIPTION**

SK2PP200-4 is an economic high quality polyester peel ply suitable for resin infusion, autoclave or hand lay-up processes. Using of SK2PP200-4 assists or eliminates the need for sanding or braiding on your composite laminate. This peel ply could be used in the processes till 200°C.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type: Polyester
Color: White
Stripers: Black
Surface weight: 80 g/m²
Recommended use temperature: 190°C
Maximum use temperature\*: 205°C

#### **►** SIZE

Thickness	Width	Length
120µm	1800mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### ▶ NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example), which could be found on the laminate.

Hot knife slitting of the 1 master roll is possible upon request. 1 master roll is a minimum order quantity.

\* Maximum use temperature should be determined in actual process conditions.

The maximum use temperature depends on the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

SK2PP200-2

**Peel Ply** 

Back to range

#### **▶** DESCRIPTION

Polyester peel ply is used to texture the surface of composite laminate. The peel ply surface is helpful for secondary bonding or painting of the composite laminate. The product is designed to work in resin infusion or hand lay-up processes. SK2PP200-2 has no coating, assist or eliminate the need for sanding or abraiding on your composite laminate. The fabric is scoured and heat set to remove most contaminates and reduce shrinkage.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type: Polyester
Color: White
Stripes: Blue
Surface weight: 85g/m²
Recommended use temperature: 190°C
Maximum use temperature: 205°C
Weave style: Plain

#### **► SIZE**

Thickness	Width	Length
130µm	1800mm	200m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### ▶ NOTE

Other weights or special sizes available on request.

### TECHNICAL DATA SHEET

SK2PP200-3

Peel ply

Back to range

#### DESCRIPTION

SK2PP200-3 is a polyester peel ply designed to be drapable yet provide superior strength. It is used to texture the surface of a composite laminate. The peel ply surface is helpful for secondary bonding or painting of the composite laminate. SK2PP200-3 has no coating, assist or eliminate the need for sanding or abraiding on your composite laminate. The fabric is scoured and heat set to remove most contaminates and reduce shrinkage.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type:

Color:

Stripes:

Surface weight:

Recommended use temperature:

Maximum use temperature:

White

Blue

92g/m²

190°C

205°C

Weave style:

Plain

#### **►** SIZE

Thickness	Width	Length
140 μm	1800mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in

original packing.

#### **▶** NOTE

Other weights or special sizes available on request.

## TECHNICAL DATA SHEET

SK2PP180-1

**Peel Ply** 

Back to range

#### DESCRIPTION

This polyester peel ply is developed special for high performance composite parts, made of phenolic and epoxy resin systems.

This peel ply is used to impart a textured fine surface impression to the molded component to improve adhesion of a composite laminate for priming and secondary structural bonding. Using of peel plies reduce or eliminate the need for sanding or abrading.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Polyester Color: White

Stripes: -

Surface weight: 102g/m²
Maximum use temperature: 180 °C
Weave style: Plain



#### **► SIZE**

Thickness	Width	Length
147µm	1740mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### **► NOTE**

Material is deoiled and heat set – thermic stabilized by heat treated to remove all possible pollutants and reduces shrinkage.

## **TECHNICAL DATA SHEET**

SK2PP230-3

Peel ply

Back to range

#### DESCRIPTION

SK2PP230-3 is high temperature tightly woven nylon fabric leaving a fine textured surface. This peel ply is scoured and heat set to remove contaminates and reduce shrinkage.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Fiber type: Nylon 66 Color: White

Weight:  $60g/m^2 \pm 5\%$ 

Maximum use temperature: 230°C
Extractable materials: <0,2%
Tensile strength MD: >280N/cm
Tensile strength TD: >280N/cm

#### **► SIZE**

Thickness	Width	Length
50µm	1520mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in the original packing.

#### **► NOTE**

Other width or special sizes available on request. Other colors available on request.

## TECHNICAL DATA SHEET

SK2PP190-1

Peel Ply

Back to range

#### **▶** DESCRIPTION

Very light high tenacity polyamide peel ply, which could be used with epoxy, vinylester and polyester resins in the processes till 190°C. SK2PP190-1 is used to impart a light textured surface to the molded component to allow secondary operations such as painting.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Polyamide HT

Color: White Stripers: Red Surface weight: 64g/m² Maximum use temperature: 190 °C Weave style: Plain



#### **► SIZE**

Thickness	Width	Length
120µ	1570mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### **►** NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example) which could be found on the laminate.

### TECHNICAL DATA SHEET

SK2PP230-1

**Peel Ply** 

Back to range

#### **▶ DESCRIPTION**

SK2PP230-1 is a peel ply, used to texture the surface of a composite laminate. The peel ply surface is helpful for secondary bonding or painting of the composite laminate. Peel ply fabrics may reduce or eliminate the need for sanding or abrading.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Fiber type: Nylon Color: White Tracer: Red Weight: 82g/m<sup>2</sup> 230°C Maximum use temperature Weave style: Plain Warp count fil/cm: 19 Warp count fil/cm: 14,8 Warp resistance DaN/5cm: 155 Weft resistance DaN/5cm: 115 Warp elongation %: 23 Weft elongation %: 20,5 Extractable %: 0.02

#### **► SIZE**

Thickness	Width	Length
0,172 mm	1630mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### ▶ NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example) which could be found on the laminate.



SK2PP185-4

**Peel Ply** 

Back to range

#### DESCRIPTION

Standard polyamide peel ply, which could be used with epoxy and polyester resins in the processes till 185°C. SK2PP185-4 is used to impart a fine surface for priming and secondary bonding. There is no release agent or silicon in the fabric so there is no contamination. Peel ply removes easily without rests on the part. The structure of the material and its porosity allows a good migration of the resin excess into breeder during the process.

SK2PP185-4 is not recommended for phenolic systems. The product is available in adhesive version SK2PP185-4AD. This adhesive peel ply avoids to use hazardous spray, it is solvent free and it keeps a very high permeability. The glue is soluble with resins.

This product is used in various manufacturing processes of parts made of composite materials.

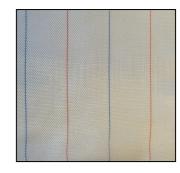
#### **▶ TECHNICAL DATA**

Material type: Polyamide 6.6

Color: White Stripes: Blue/Red Surface weight: 83g/m²

Treatment: Scoured & Heat Set

Maximum use temperature: 185 °C
Weave style: Taffeta
Elongation at break: 30%
Wrap tensile strength: 140
Weft tensile strength: 110



#### **► SIZE**

Thickness	Width	Length
160µ	1610mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in

original packing.



SK2PP185-4

Peel Ply

#### **▶** NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example) which could be found on the laminate.

## TECHNICAL DATA SHEET

SK2PP170-1

**Peel Ply** 

Back to range

#### **▶** DESCRIPTION

SK2PP170-1 is an economical polyamide peel ply with good performance when used with both polyester and epoxy resins. It has black tracers with high visibility to reduce the risk of peel ply being left on the part. The product is designed to work in resin infusion or hand lay-up processes. SK2PP170-1 has no coating, assist or eliminate the need for sanding or abraiding on your composite laminate. The fabric is scoured and heat set to remove most contaminates and reduce shrinkage.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Nylon 6
Color: White
Stripes: Black

Surface weight:  $85g/m^2 \pm 5\%$ 

Maximum use temperature: 190 °C Weave style: Plain

#### **►** SIZE

Thickness	Width	Length
120µm	1800mm	200m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in

original packing.

#### ▶ NOTE

Other weights or special sizes available on request.



SK2PP220-1

**Peel Ply** 

#### DESCRIPTION

SK2PP220-1 is an economic peel ply, which is high in quality, yet inexpensive. It is designed to work in resin infusion, autoclave or hand lay-up processes. Using of SK2PP220-1 assists or eliminates the need for sanding or braiding on your composite laminate.

This peel ply could be used with epoxy, polyester and vinylester resins in the processes till 220°C.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Nylon 66
Color: White
Stripers: Red

Surface weight: 85 +/-5 g/m² Maximum use temperature: 220 °C

Thickness: 0,11-0,12 mm



#### ► SIZE

Thickness	Width	Length
70µm	1800mm	200m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### **▶** NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example),



SK2PP220-1

**Peel Ply** 

which could be found on the laminate.

Hot knife slitting of the 1 master roll is possible upon request. 1 master roll is a minimum order quantity.

Other widths and length of roll available at special order. Maximum width of the roll is 1800mm.



SK2PP220-3

**Peel Ply** 

#### **▶** DESCRIPTION

SK2PP220-3 is brightly green peel ply for easier identification on the laminate to reduce risk of leaving in place after cure. It is designed to work in resin infusion, autoclave or hand lay-up processes. Using of SK2PP220-3 assists or eliminates the need for sanding or braiding on your composite laminate.

This peel ply could be used with epoxy, polyester and vinylester resins in the processes till 220°C.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type:

Color:

Surface weight:

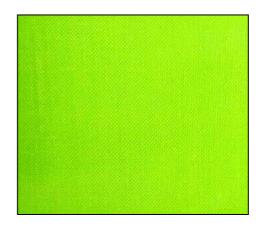
Maximum use temperature:

Nylon 66

Green

85 +/-5 g/m²

220 °C



#### ► SIZE

Thickness	Width	Length
70µm	1800mm	200m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### ▶ NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example), which could be found on the laminate.

Hot knife slitting of the 1 master roll is possible upon request. 1 master roll is a minimum order quantity.

Other widths and length of roll available at special order. Maximum width of the roll is 1800mm.

### TECHNICAL DATA SHEET

### **SK2PP220-6 AD**

### Peel Ply with adhesive coating

Back to range

#### DESCRIPTION

SK2PP220-6 AD is an economic high-quality polyamide peel ply with adhesive coating, which could be used with epoxy and polyester resins in the processes till 230°C. There is no release agent or silicon in the fabric so there is no contamination. Peel ply removes easily without rests on the part. The structure of the material and its porosity allows a good migration of the resin excess into breeder during the process. With already applied adhesive on the surface and with liner, this peel ply avoids to use hazardous spray, it is solvent free and it keeps a very high permeability. The adhesive is soluble with resins.

SK2PP220-6 AD is not recommended for phenolic systems.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Polyamide 6.6

Color: White Stripers: Red Surface weight without adhesive: 85 g/m² Maximum use temperature\*: 230°C

#### ► SIZE

Thickness	Width	Length
160µm	1000mm	50m
160µm	200mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### ▶ NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example), which could be found on the laminate.

Hot knife slitting of the 1 master roll is possible upon request. 1 master roll is a minimum order quantity.

\* Maximum use temperature should be determined in actual process conditions.

The maximum use temperature depends on the duration at maximum temperature and is process specific, we recommend testing prior to use.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

## TECHNICAL DATA SHEET

SK2PP185-1

Peel Ply

Back to range

#### **▶** DESCRIPTION

High tenacity polyamide peel ply, which could be used with epoxy, vinylester and polyester resins in the processes till 185°C. SK2PP185-1 is used to impart a rude textured surface to the molded component to allow secondary operations such as bonding or painting.

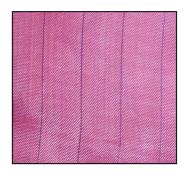
Peel ply removes easily without rests on the part. Because of pick color and blue stripes this peel ply has high visibility, so the risk of peel ply being left on the part is reduced till minimum. The structure of the material and its porosity allows a good migration of the resin excess into breeder during the process.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Polyamide HT

Color: Pink
Stripes: Blue
Surface weight: 90g/m²
Maximum use temperature: 185 °C
Weave style: Plain



#### SIZE

Thickness	Width	Length
160µ	1560mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### **►** NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example) which could be found on the laminate.



SK2PP190-3

**Peel Ply** 

Back to range

#### DESCRIPTION

High tenacity polyamide peel ply, which could be used with epoxy, vinylester and polyester resins in the processes till 205°C. This peel ply is used to impart textured surface to the molded component to allow secondary operations such as painting.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Polyamide Color: Off-white

Stripers: -

Surface weight: 90g/m²
Maximum use temperature: 205 °C
Weave style: Plain

#### **► SIZE**

Thickness	Width	Length
180µm	1640mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### **▶** NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example) which could be find on the laminate.



SK2PP220-4

**Peel Ply** 

Back to range

#### DESCRIPTION

SK2PP220-4 - inexpensive high quality peel ply designed to work in resin infusion, autoclave or hand lay-up processes. Using of SK2PP220-4 assists or eliminates the need for sanding or braiding on your composite laminate.

This peel ply could be used with epoxy, polyester and vinylester resins in the processes till 220°C.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: Nylon 66
Color: White
Stripes: Red

Surface weight: 90 +/- 5 g/m<sup>2</sup>
Maximum use temperature: 220 °C

## ► SIZE

Thickness	Width	Length
100µm	1560mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### **▶ NOTES**

Peel plies are treated in order to remove all pollutant products (like silicones for example), which could be found on the laminate.

## TECHNICAL DATA SHEET

SK2PP220-2

**Peel Ply** 

Back to range

#### DESCRIPTION

SK2PP220-2 is a high quality polyamide peel ply of average surface weight with red stripes visible before and after curing, that reduce the risk to be left on the part surface. This peel ply can be used for infusion, autoclave or hand molding. Using of peel plies reduce or eliminate the need for sanding or abrading of composite laminate.

This peel ply could be used with epoxy, polyester and vinylester resins in the processes till 232°C.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Nylon 66 Color: White

Stripes: Red or green
Tensile strength wrap: 380N/cm
Tensile strength weft: 350N/cm
Surface weight: 95 g/m²
Maximum use temperature: 220°C
Recomm. use temperature: 232°C
Weave style: Plain

#### **► SIZE**

Thickness	Width	Length
130µm	1500mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in

original packing.

#### **▶** NOTE

Other weights or special sizes available on request.

Peel ply can be supplied with width varies from 25mm until 3000 mm.

## TECHNICAL DATA SHEET

SK2PP185-3

Peel Ply

Back to range

#### DESCRIPTION

Heavy polyamide peel ply, which could be used with epoxy, vinylester and polyester resins in the processes till 185°C. SK2PP185-3 is used to impart a rude textured surface to the molded component to allow secondary operations such as bonding or painting.

Peel ply removes easily without rests on the part. The structure of the material and its porosity allows a good migration of the resin excess into breeder during the process.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Polyamide
Color: White
Stripes: Blue
Surface weight: 104g/m²
Maximum use temperature: 185 °C
Weave style: Plain



#### **► SIZE**

Thickness	Width	Length
195µm	1600mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### **▶** NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example) which could be found on the laminate.



SK2PP180-3

Peel Ply

Back to range

#### DESCRIPTION

Tight woven polyamide peel ply, which could be used with epoxy, vinylester and polyester resins in the processes till 180°C. SK2PP180-3 is used to impart a rude textured surface to the molded component to allow secondary operations such as bonding or painting.

Peel ply removes more easily compare to SK2PP185-1, because of woven style. Because of pick color this peel ply has high visibility, so the risk of peel ply being left on the part is reduced till minimum. The structure of the material is less porous, but still allows a good migration of the resin excess into breeder during the process.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Polyamide HT

Color: Pink Stripes: -

Surface weight: 107g/m²
Maximum use temperature: 180 °C
Weave style: Plain



#### **►** SIZE

Thickness	Width	Length
190µm	1560mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in original packing.

#### ▶ NOTE

Peel plies are treated in order to remove all pollutant products (like silicones for example) which could be found on the laminate.



### SK2PP250-1

Heavy duty peel ply

Back to range

#### DESCRIPTION

SK2PP250-1 is a non-coated heavy duty peel ply, used for reduce or eliminate the need for sanding or abrading by producing of composite laminates. This fabric is scoured and heat set to remove contaminates and reduce shrinkage.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Test method

Composition: 100% Polyamide 6.6 high tenacity

Color: White

Wrap: Polyamide HT 235 DTEX NF GO1074

Polyamide HT 235 DTEX Weft:

22 x 21, 5 ± 1cm NF GO7155 Weave count (yarn/cm): 110 a ± 10 Normal weight: NF GO7150

Width cm: 160 cm usable ± 2cm Weave: Plain weave fabric

Treatment: heat set

ISO 13934-1 Tensile strength warp: >150 daN Tensile strength weft: >150 daN ISO 13934-1 Elongation warp %: 25%± 10 ISO 13934-1 Elongation weft %: 25%± 10 ISO 13934-1

Max use temperature: 250°C

#### **► SIZE**

Thickness	Width	Length
200μm ± 30	1600mm ± 20	100 m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C

in original packing.



SK2PP205-1

Peel ply

Back to range

#### DESCRIPTION

SK2PP205-1 is a high tenacity technical peel ply, coated with silicone designed to be used on epoxy and polyester composite systems. It allows a very easy removal. This high tenacity fabric leaves a fine surface impression for painting and secondary bonding. Coated silicon fabrics can potentially contaminate the laminate. It is available in full width of bands. During the vacuum molding process its porosity allows a good bleeding of the excess of resin towards the bleeder fabric. This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Fiber type: Polyamide
Color: Yellow
Weight: 51g/m²
Use with phenolic: No

Treatment: Scoured & heat set+coated silicone

Maximum use temperature: 204°C
Weave style: Taffeta
Extractable materials: <0,2%
Warp elasticity: 39
Weft elasticity: 51
Warp breaking strength: 44
Weft breaking strength: 49

#### **► SIZE**

Thickness	Width	Length
79µm	1650mm	100m
79 μm	1650mm	500 m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in the original packing.

#### **►** NOTE

The product is available in width range from 13 to 1650 mm.



SK2PP230-2

Peel ply

Back to range

#### DESCRIPTION

SK2PP230-2 is high temperature tightly woven nylon fabric coated with a silicone release agent. It provides very good release after curing as silicone prevents the fabric from bonding to the laminate surface. It will provide easy release from most resin systems.

All silicone coated peel plies have the potential to transfer. This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Fiber type: Nylon 66
Coating: Silicone

Color: White / Yellow / Light blue

Weight:  $60g/m^2 \pm 5\%$ 

Maximum use temperature 230°C
Extractable materials: <0,2%
Tensile strength MD: >280N/cm
Tensile strength TD: >280N/cm

#### **► SIZE**

Thickness	Width	Length
85µm	1520mm	100m

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in the original packing.

#### **▶** NOTE

Other width or special sizes available on request.



# **BLEEDERS / BREATHERS**

### **RANGE**

Back to content

Name	Description	Max. use T°C	Weight
SK2BB205-1	Ultra-light non-woven breather	205°C	100g/m²
SK2BB205-2	Light non-woven breather	205°C	140g/m²
SK2BB205-3	Medium non-woven breather	205°C	230g/m²
SK2BB205-4	Heavy non-woven breather	205°C	340g/m²
SK2BB205-5	High resistance non-woven breather	205°C	340g/m²
SK2BB205-6	Very heavy non-woven breather	205°C	600g/m²
SK2BB205-7	Heavy, high resistance, non-woven polyester breather	205°C	400g/m²
SK2BB205-8	Medium weight non-woven polyester breather	205°C	300g/m²
SK2BB230-2	Light non-woven breather	230°C	200g/m²
SK2BB230-3	Medium weight non-woven polyamide breather	230°C	230g/m²
SK2BB230-4	Medium weight non-woven polyamide breather	230°C	340g/m²
SK2BB230-5	Heavy weight non-woven polyamide breather	230°C	440g/m²
SK2BB400-1	High temperature resistant glass breather	400°C	205g/m²
SK2BB427-1	Fiberglass breather for high temperature applications	427°C	610g/m²
SK2BB427-2	Fiberglass breather for high temperature applications	427°C	580g/m²

# **TECHNICAL DATA SHEET**

### SK2BB205-1

Breather/bleeder

Back to range

#### DESCRIPTION

This ultra-light weight non-woven polyester breather could be used for low pressure curing up to 2 bars. It is stretchable and conforms well. Material can be used as a bleeder at any pressure.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type:

Weight:

Maximum use temperature:

Color:

Fibre thickness:

Polyester
100g/m²
205°C
White
6,7dtex

#### **►** SIZE

Thickness	Width	Length
2,5-3mm	1500mm	100m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### **▶** NOTE

Other widths are available on special order. Max. width is 2,4m.

## TECHNICAL DATA SHEET

SK2BB205-2

Breather/bleeder

Back to range

#### DESCRIPTION

This light weight non-woven polyester breather could be used for medium pressure curing. It is stretchable and has good drapability.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type:

Weight:

Maximum use temperature:

Color:

Fibre thickness:

Polyester
140g/m²
205°C
White
6,7dtex

#### **► SIZE**

Thickness	Width	Length
3-3,5mm	1000mm	100m
3-3,5mm	1500mm	100m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### ▶ NOTE

Other widths are available on special order. Max. width is 2.4m.

## TECHNICAL DATA SHEET

SK2BB205-3

Breather/bleeder

Back to range

#### DESCRIPTION

This medium weight non-woven polyester breather could be used for medium pressure curing. It is stretchable and has good drapability.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Polyester
Weight: 230g/m²
Maximum use temperature: 205°C
Color: White
Fibre thickness: 17dtex

#### **► SIZE**

Thickness	Width	Length
4-5mm	1500mm	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### **▶** NOTE

Other widths are available on special order.

## TECHNICAL DATA SHEET

SK2BB205-4

Breather/bleeder

Back to range

#### DESCRIPTION

This heavy weight non-woven polyester breather is used for high pressure cycles. It offers good elongation and avoids any sharp radius for vacuum bag protection.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Polyester
Weight: 340g/m²
Maximum use temperature: 205°C
Color: White
Fibre thickness: 17dtex

#### **► SIZE**

Thickness	Width	Length
5-6mm	1500mm	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### **▶** NOTE

Other widths are available on special order. Max. width is 2,4m.

## TECHNICAL DATA SHEET

### SK2BB205-5

Breather/bleeder

Back to range

#### DESCRIPTION

This heavy, high resistance, non-woven polyester breather is used for high pressure long curing cycles. It offers good elongation and avoids any sharp radius for vacuum bag protection.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type:

Weight:

Maximum use temperature:

Color:

Fibre thickness:

Polyester
340g/m²
205°C
White
28dtex

#### **►** SIZE

Thickness	Width	Length
5-6mm	1500mm	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### **► NOTE**

Other widths are available on special order.

Max. width is 3,0m.

# **TECHNICAL DATA SHEET**

SK2BB205-6

Breather/bleeder

Back to range

#### DESCRIPTION

This very heavy, high resistance, non-woven polyester breather is used for high pressure long curing cycles. It avoids any sharp radius for vacuum bag protection.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type:

Weight:

Maximum use temperature:

Color:

Fibre thickness:

Polyester
600g/m²
205°C
White
17dtex

#### **► SIZE**

Thickness	Width	Length
6-7mm	1500mm	25m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### ▶ NOTE

Other widths are available on special order. Max. width is 2,4m.

## TECHNICAL DATA SHEET

SK2BB205-7

Breather/bleeder

Back to range

#### **▶ DESCRIPTION**

This heavy, high resistance, non-woven polyester breather is used for high pressure long curing cycles. It offers good elongation and avoids any sharp radius for vacuum bag protection.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Polyester
Weight: 400g/m²
Maximum use temperature: 205°C
Color: White
Fibre thickness: 17dtex

#### **► SIZE**

Thickness	Width	Length
7-7,5mm	1500mm	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### **► NOTE**

Other widths are available on special order. Max. width is 2,4 m.



SK2BB205-8

Breather/bleeder

Back to range

#### **▶ DESCRIPTION**

This medium weight non-woven polyester breather is used for high pressure cycles. It offers good elongation and avoids any sharp radius for vacuum bag protection.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type:

Weight:

Maximum use temperature

Color:

Fibre thickness:

Polyester
300g/m²
205°C
White
17dtex

#### **► SIZE**

Thickness	Width	Length
5,5mm	1,5m	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

#### **► NOTE**

Other widths are available on special order. Max. width is 2,4m.

## TECHNICAL DATA SHEET

SK2BB230-2

Breather/bleeder

Back to range

#### DESCRIPTION

This light weight, non-woven polyamide breather is used for high temperature cycles with high pressure. It offers good elongation and avoids any sharp radius for vacuum bag protection conducting away volatiles at pressures exceeding 7 bars. The material can be used with all resin systems. This breather is reusable.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type: Polyamide 6.6

Weight: 200g/m²
Maximum use temperature 230°C
Color: White
Fibre thickness: 17dtex

#### **► SIZE**

Thickness	Width	Length
3,5-4mm	1,5m	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### ▶ NOTE

Other widths are available on special order. Max. width is 2,4m.

## TECHNICAL DATA SHEET

SK2BB230-3

Breather/bleeder

Back to range

#### DESCRIPTION

This medium weight non-woven polyamide breather could be used for high pressure curing. It is stretchable and has good drapability.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Polyamide 6.6

Weight: 230g/m²
Maximum use temperature 230°C
Color: White
Fibre thickness: 17dtex

#### **► SIZE**

Thickness	Width	Length
4-5 mm	1500mm	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

#### **► NOTE**

Other widths are available on special order.

## **TECHNICAL DATA SHEET**

SK2BB230-4

Breather/bleeder

Back to range

#### DESCRIPTION

This medium weight, non-woven polyamide breather is used for high temperature cycles with high pressure. It offers good elongation and avoids any sharp radius for vacuum bag protection conducting away volatiles at pressures exceeding 7 bars. The material can be used with all resin systems. This breather is reusable.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type: Polyamide 6.6

Weight: 340g/m²
Maximum use temperature: 230°C
Color: White
Fibre thickness: 17dtex

#### **► SIZE**

Thickness	Width	Length
5-6mm	1,5m	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### **► NOTE**

Other widths are available on special order.

## **TECHNICAL DATA SHEET**

SK2BB230-5

Breather/bleeder

Back to range

#### **▶** DESCRIPTION

This high weight, non-woven polyamide breather is used for high temperature cycles with high pressure. It offers good elongation and avoids any sharp radius for vacuum bag protection conducting away volatiles at pressures exceeding 7 bars. The material can be used with all resin systems. This breather is reusable.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type: Polyamide 6.6

Weight: 440g/m²
Maximum use temperature: 230°C
Color: White
Fibre thickness: 17dtex

#### **► SIZE**

Thickness	Width	Length
7,5-8mm	1,5m	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### **► NOTE**

Other widths are available on special order.

## TECHNICAL DATA SHEET

### SK2BB400-1

Breather/bleeder

Back to range

#### DESCRIPTION

This medium weight high temperature resistant non-woven glass breather could be used for high pressure curing. It makes an easier transition for the vacuum bag and in any radius.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Glass

Weight: 203 +/- 10g/m<sup>2</sup>

Maximum use temperature: 400°C Color: White

Composition	Warp	Weft
Yarn	EC9 68	EC9 68
Count/cm (number of yarns)	17.4 ± 0,3	11.8 ± 0,3

	Warp direction	Weft direction
Tensile strength	20	14

#### **► SIZE**

Width	Length
1000mm	100m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **►** NOTE

Other widths are available on special order.



SK2BB427-1

### Fiberglass breather for high temperature applications

Back to range

#### **▶** DESCRIPTION

SK2BB427-1 is a non-woven fiberglass breather which is more convenient at usage than woven fiberglass breather due to the high drapability of material. This product is designed for high temperature thermoset and thermoplastic resins. It makes an easier transition for the vacuum bag and in any radius. Only one layer of breather provides good breathing at high temperatures until 427°C.

The product is incombustible and has excellent insulating properties and good vibration stability.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Raw material: Glass fibres
Weight: 610g/m²
Maximum use temperature: 427°C
Color: White



#### **► SIZE**

Width	Length
1,15m	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### ▶ NOTE

Other widths are available on special order.



SK2BB427-2

### Fiberglass breather for high temperature applications

Back to range

#### **▶** DESCRIPTION

SK2BB427-2 is a non-woven fiberglass breather which is more convenient at usage than woven fiberglass breather due to the high drapability of material. This product is designed for high temperature thermoset and thermoplastic resins. It makes an easier transition for the vacuum bag and in any radius. Only one layer of breather provides good breathing at high temperatures until 427°C.

The product is incombustible and has excellent insulating properties and good vibration stability.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Raw material: Glass fibres
Weight: 580g/m²
Maximum use temperature 427°C
Color: White



#### **►** SIZE

Width	Length
1,15m	50m

Shelf life: not limited.

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### **►** NOTE

Other widths are available on special order.



# **ADHESIVE TAPES**

**RANGE** 

Back to content

Name	Description	Max. use T°C	Total thickness	Carrier type	Adhe- sive type	Color
SK2AT60-1	Double coated tape	60°C	271µm	Cloth	Rubber	White
SK2AT77-1	Adhesive tape for safety marking and temporary protection	77°C	0,14 mm	Vinyl	Rubber	Yellow, white, red, black, brown, green, orange, purple, blue, transparent
SK2AT100-2	Double coated tape from fiber glass	100°C	300µm	Fiber glass	Acrylic	White
SK2AT150-1	High strength adhesive tape	150°C	0,05 mm	Polyester	Acrylic	Yellow, white, red, black, brown, green, orange, purple, blue, transparent
SK2AT180-1	Masking and holding tape	180°C	60µm	Polyester	Rubber	Yellow
SK2AT180-2	Release tape	180°C	88µm	PTFE	Acrylic	Brown
SK2AT200-1	Double coated tape	200°C	210µm	Polyester	Acrylic	White
SK2AT200-2	Double coated tape	200°C	110µm	Polyester	Acrylic	White
SK2AT200-3	High temperature double coated tape	204°C	95µm	Polyester	Acrylic	White
SK2AT205-1	Masking and holding tape	205°C	63µm	Polyester	Silicone	Blue
SK2AT205-2	Masking and holding tape	205°C	80µm	Polyester	Silicone	Blue
SK2AT205-3	Masking and holding tape	205°C	163µm	Polyester	Silicone	Blue
SK2AT205-4	High tack holding tape	205°C	100µm	Polyester	Silicone	Green
SK2AT205-5	Strong tear resistant polyester adhesive tape with non-silicone adhesive	205°C	100µm	Polyester	Rubber	Green
SK2AT205-6	All-purpose polyester adhesive tape with non-silicone adhesive	205°C	75 µm	Polyester	Rubber	Green
SK2AT205-7	Tough abrasion- resistant adhesive tape	205°C	100 µm	Polyester	Silicone	Red



# **ADHESIVE TAPES**

### **RANGE**

<u>SK2AT205-8</u>	High-strength polyester adhesive tape	205°C	175 μm	Polyester	Rubber	Green
SK2AT260-4	Release tape with high elongation	260°C	91µm	PTFE	Silicone	Brown
<u>SK2AT260-5</u>	Release tape with high elongation	260°C	91µm	PTFE	Silicone	Orange
SK2AT260-8	Holding tape	260°C	80µm	Fiber glass with PTFE	Silicone	Brown
SK2AT399-1	High temp holding tape	399°C	63µm	Polyimide	Silicone	Amber
SK2AT399-2	High temp. double coated holding tape	399°C	25µm	Polyimide	Silicone	Amber



**SK2AT60-1** 

### Double side coated adhesive tape

Back to range

#### **▶** DESCRIPTION

The tape is an all-purpose double-backed holding tape. It is a cloth tape coated on both sides with rubber adhesive. Tape is designed to hold honeycomb cores during machining, spiral wrap in resin infusion process and fix table protection sheet SK3TUT-1 on the table.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Carrier type: Cloth
Adhesive type: Rubber
Color: White
Total thickness: 271µm
Carrier thickness: 177µm
Adhesive thickness: 88µm

Adhesion to steel: 13,9N/25mm

Maximum use temperature: 60°C Elongation on break: 8%

#### ► SIZE

Width	Length	Packaging
25mm	33m	36 rolls/cs
50mm	33m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### ► NOTE

Other sizes are available on special order.



SK2AT77-1

**Vinyl Tape** 

Back to range

#### **▶ DESCRIPTION**

SK2AT77-1 are tapes with a large range of colours (9 colors plus transparent) made from vinyl backing with rubber adhesive. They are ideal for many lane and safety markings, color coding, abrasion protection, masking, sealing, splicing and other general purpose applications.

Vinyl tape SK2AT77-1L is a linered version of the tape that may be used for die cutting or large area applications.

DESCRIPTION			
Product name	ne Adhesive Colour		Standard roll length
SK2AT77-1	Rubber	Yellow, white, red, black, brown, green, orange, purple, blue and transparent	33m
SK2AT77-1L	Rubber	Yellow, white, red, black, brown, green, orange, purple, blue and transparent	33m

#### **► TECHNICAL DATA**

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.



**SK2AT77-1** 

Vinyl Tape

PHYSICAL PROPERTIES					
Prop	perties of coloured tapes				
Adhesion to steel	25 N/100 mm	D-3330			
Tensile Strength at break	270 N/100 mm	D-3759			
Elongation at break	130 %	D-3759			
Backing thickness	0,10 mm	D-3652			
Total tape thickness	0,14 mm	D-3652			
Liner thickness (SK2AT77-1L)	0,6 mm	D-3652			
Temperature use range	4° to 77°C				
Prop	Properties of transparent tape				
Adhesion to steel	28 N/100 mm	D-3330			
Tensile Strength at break	270 N/100 mm	D-3759			
Elongation at break	150 %	D-3759			
Backing thickness	0,10 mm	D-3652			
Total tape thickness	0,14 mm	D-3652			
Liner thickness (SK2AT77-1L)	0,6 mm	D-3652			
Temperature use range	4° to 77°C				

### TECHNICAL DATA SHEET

**SK2AT77-1** 

**Vinyl Tape** 

#### **FEATURES**

Pigmented backings maintain their vivid colors even when exposed to heavy abrasion. Conformability and dead stretch properties are ideal for taping, wrapping or sealing many curved, convex, or irregular surfaces.

Rubber adhesive provides good adhesion to many surfaces for easier application and excellent holding strength.

Sharp colors for color coding or marking systems, draw attention and help to enhance plant safety.

Clean removal from many surfaces which helps reduce clean-up and labor costs.

Abrasion resistant and longer potential application life.

Good solvent resistance for application protection and longer product life.

#### APPLICATION IDEAS

The tape is ideal for protecting, taping and sealing of uneven and convex surfaces. Excellent for many lane and safety marking applications. Ideal for color coding, protecting against mechanical action, decorating and splicing.

#### ► APPLICATION TECHNIQUES

Best results are attained when applied to a clean, dry surface at temperatures between 16° to 27°C.

Note: While tapes SK2AT77-1 resist many common solvents, they should not be exposed to ketones, chlorinated hydrocarbons and esters found in lacquer thinner, degreasers, paint strippers, etc., which may cause the backing to swell or curl.

#### **▶ STORAGE**

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **▶ SHELF LIFE**

To obtain best performance, use this product within 18 months from date of manufacture.

#### **▶** NOTE

Technical data, recommendations or other statements contained herein are based on tests that we consider reliable, but the accuracy and completeness of this information cannot be guaranteed. We cannot assume responsibility for the results obtained by others over whose methods we have no control. Taking into account that many factors can influence the product quality and its use, it is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein.

## TECHNICAL DATA SHEET

SK2AT100-2

### Double side coated adhesive tape

Back to range

#### **▶** DESCRIPTION

SK2AT100-2 is a double adhesive tape based on glass fiber of 45 g/m2. It is used for local fixing of reinforcement in the processes with closed mould.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Carrier type: Glass fiber

Adhesive type: ACR
Color White
Total weight: 72g/m2
Glue weight: 26 g/m2

Warp: 3,7 Ends / cm x 2 x 34 tex glass Weft: 3 Ends / cm x 68 tex glass

Tensile strength MD: 800 N/5 cm Tensile strength TD: 700 N/5 cm

Elongation at break MD: 3% Elongation at break TD: 3% Maximum use temperature: 100°C

### ► SIZE

Thickness	Width	Length
0,3mm	30mm	100 m

Shelf life: 12 months in original packing

Storage conditions: It is recommended to store at temperature from +10°C until +30°C in

the original packing.

#### **► NOTE**

Packaging: 34 rolls per carton, 36 cartons par pallet.



SK2AT150-1

**Polyester Film Tape** 

Back to range

#### **▶ DESCRIPTION**

Polyester Film Tape SK2AT150-1 can generally be used for applications where chemical resistance and/or clean removal is necessary. The silver backing is a transparent polyester with a thin layer of aluminum.

Backing	Adhesive	Colour	Standard roll length
Polyester	Acrylic	Transparent, red, black, white, silver	66m

#### **▶ TECHNICAL DATA**

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

PHYSICAL PROPERTIES		
		ASTM Test Method
Adhesion to steel: silver:	33 N/100 mm 46 N/100 mm	D-3330 D-3330
Tensile strength at break:	491 N/100 mm	D-3759
Elongation at break:	120 %	D-3759
Backing thickness:	0,02 mm	D-3652
Total tape thickness:	0,05 mm	D-3652
Water vapor transmission rate:	24.8 g/m² / 24 hrs.	D-3833
Silver:	4.8 g/m² / 24 hrs	D-3833
Temperature use range:	-50°C to 150°C	

### TECHNICAL DATA SHEET

SK2AT150-1

**Polyester Film Tape** 

- Prolonged exposure to sunlight or hot caustics will cause backing to become brittle and lose tensile strength.
- Thin, high strength polyester film helps to reduce failures due to breakage while meeting low caliper requirements.
- Chemical and solvent resistance to help reduce rejects produced from chemical and solvent attack.
- Abrasion resistant to help protect surface from abrasion and rough handling.

#### ► APPLICATION

Transparent, red, black, white	Silver
Splicing and web defect marking	Post splicing movie film
Sealing, labeling and protecting	Deflect flagging where reflective sensing is required
Positive film striping (transparent)	Decorative striping and die cutting
Decorative edging	Decorative edging
Tape hinge	

#### **▶ STORAGE**

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing. To obtain best performance, use this product within 18 months from the date of manufacture.

#### ▶ NOTE

Technical data, recommendations or other statements contained herein are based on tests that we consider reliable, but the accuracy and completeness of this information cannot be guaranteed. We cannot assume responsibility for the results obtained by others over whose methods we have no control. Taking into account that many factors can influence the product quality and its use, it is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein.



SK2AT150-1

**Polyester Film Tape** 

#### **▶ WARRANTY, LIMITED REMEDY, AND DISCLAIMER**

Unless an additional warranty is specifically stated on the applicable product packaging or product literature, we warrant that each product meets the applicable product specification at the time we ship the product. We make no other warranties or conditions, express or implied, including, but not limited to, any implied warranty or condition of merchantability or fitness for a particular purpose or any implied warranty or condition arising out of a course of dealing, custom or usage of trade.

Limitation of liability: except where prohibited by law, we will not be liable for any loss or damage arising from the product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

This product was manufactured according to ISO 9001: 2008 standards.

### TECHNICAL DATA SHEET

SK2AT180-1

Adhesive tape

Back to range

#### DESCRIPTION

SK2AT180-1 is polyester tape coated rubber adhesive. This tape is designed for holding vacuum bagging materials and thermocouple wires on metal or composites parts and tools in sensitive areas where silicone adhesive is not permitted.

The tape removes easily after the cure.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Polyester Carrier type: Rubber Adhesive type: Color: Yellow Total thickness: 60µm Carrier thickness: 23µm Adhesive thickness: 37µm 180°C Maximum use temperature: 90% Elongation on break:

#### **► SIZE**

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **►** NOTE

Other sizes are available on special order.

## TECHNICAL DATA SHEET

SK2AT180-2

**Adhesive Tape** 

Back to range

#### DESCRIPTION

SKAT180-2 is a skived & tensilized PTFE film coated with a high temperature acrylic adhesive.

This tape is ideal for use on areas where high elongation and release properties are needed. It will conform to irregular shapes and mould surfaces while offering multiple releases. Tapes can be used as a semi-permanent release covering on pressure intensifiers and mandrels. SKAT180-2 will release from most resin systems. The acrylic PTFE tapes find application in composite shops where silicone adhesive tapes are not permitted.

The tape removes easily after the cure without adhesive residues.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Carrier type: PTFE Adhesive type: Acrylic

Adhesion (oz/in): 30 ASTM-D 1000

Color: Brown
Total thickness: 88µm
Carrier thickness: 50µm
Adhesive thickness: 38µm
Maximum use temperature: 180°C

Elongation on break: 100% ASTM-D 3759

#### ► SIZE

Width	Length	Packaging
25mm	33m	48 rolls/cs
50mm	33m	24 rolls/cs

Shelf life: 12 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **▶** NOTE

Other widths (6mm – 508mm) are available on special order.

## TECHNICAL DATA SHEET

SK2AT200-1

### Double side coated adhesive tape

Back to range

#### DESCRIPTION

The tape is an all-purpose, high temperature resistant double-backed holding tape. It is a polyester film coated on both sides with acrylic adhesive. Tape is designed to hold secondary bonded details, spiral wrap in the high temperature resin infusion process, release plies, films and breathers in place during lay-up and machining operations.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Carrier type: Polyester Adhesive type: Acrylic White Color: Total thickness: 210µm Carrier thickness: 80µm Adhesive thickness: 65µm 200°C Maximum use temperature: Elongation on break: 50%

#### ► SIZE

Width	Length
12mm	50m
19mm	50m
25mm	50m

Shelf life: 12 months in original packing

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

#### **►** NOTE

Colour of carrier: white or red.

Other sizes are available on special order.

## TECHNICAL DATA SHEET

SK2AT200-2

### Double side coated adhesive tape

Back to range

#### DESCRIPTION

The tape is an all-purpose, high temperature resistant double-backed holding tape. It is a polyester carrier coated on both sides with acrylic adhesive. It is designed to hold secondary bonded details such as spiral wrap, release plies, films and breathers in place during lay-up for high temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Carrier type: Polyester Adhesive type: Acrylic Color White Total thickness: 110um Carrier thickness: 50µm Adhesive thickness: 60µm Color of liner: White 200°C Maximum use temperature:

#### ► SIZE

Width	Length
12mm	50m
19mm	50m
25mm	50m

Shelf life: 12 months in original packing

Storage conditions: It is recommended to store at temperature from -20°C until +30°C in the original packing.

#### **►** NOTE

Other sizes are available on special order. Maximum roll width is 1000mm



SK2AT200-3

### High temperature double side coated adhesive tape

Back to range

#### DESCRIPTION

It is an all-purpose double-backed polyester tape with a high tack pressure sensitive adhesive system. SK2AT200-3 is 13µm polyester film coated on both sides with a non-silicone adhesive. It is used in different applications like holding and fixing of release plies, release films and breathers and materials during lay-up, vacuum bagging operations and curing process to avoid process errors and to improve part quality. SK2AT200-3 provides fast, simple and clean application. Its high adhesive system is UV and chemical resistant. High quick stick offers fast and secure bond on different types of surfaces.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Carrier type: Polyester
Adhesive type: Acrylic
Color: Clear
Total thickness: 95µm
Carrier thickness: 13µm
Adhesive thickness: 82µm

Tensile strength: 22.3 n/25.4 mm

Elongation: <50% Maximum use temperature: 204°C

#### **► SIZE**

Width	Length
25,4 mm	33m
50,8 mm	33m

Shelf life: 18 months in original packing

Storage conditions: It is recommended to store at temperature from -20°C until +30°C in the original packing.

#### ▶ NOTE

Other sizes are available on special order.

## TECHNICAL DATA SHEET

SK2AT205-1

**Adhesive Tape** 

Back to range

#### **▶ DESCRIPTION**

Tape is high temperature and tensile strength polyester film coated with pressure sensitive silicone adhesive. AT205-1 could be used in oven and autoclave for flash breaking application, holding down vacuum bagging materials and thermocouples.

This tape is designed to perform in masking applications and chemical milling protection requiring high chemical resistance.

The tape removes easily after the cure.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Polyester Carrier type: Adhesive type: Silicone Color Blue Total thickness: 63µm Carrier thickness: 25µm Adhesive thickness: 38µm 205°C Maximum use temperature: Elongation on break: 100%

#### **► SIZE**

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **▶** NOTE

Other sizes are available on special order.



SK2AT205-2

**Adhesive Tape** 

Back to range

#### DESCRIPTION

AT205-2 tape is a stronger version of AT205-1, used anywhere extra strength is needed.

Tape is high temperature and tensile strength polyester film coated with pressure sensitive silicone adhesive. AT205-2 could be used in oven and autoclave for flash breaking application, holding down vacuum bagging materials and thermocouples.

This tape is designed to perform in masking applications and chemical milling protection requiring high chemical resistance.

The tape removes easily after the cure.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Carrier type: Polyester
Adhesive type: Silicone
Color: Blue / Green

Total thickness: 80µm
Carrier thickness: 50µm
Adhesive thickness: 30µm
Maximum use temperature: 205°C
Elongation on break: 100%

#### ► SIZE

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **►** NOTE

### TECHNICAL DATA SHEET

SK2AT205-3

**Adhesive Tape** 

Other sizes are available on special order.

Back to range

#### **▶** DESCRIPTION

AT205-3 tape is used for adhesive flash clean-up over or next the bond lines or anywhere extra strength is needed. It can be also used to aid in potting inserts, drilling through AT205-3.

Tape is high temperature and tensile strength polyester film coated with pressure sensitive silicone adhesive. AT205-3 could be used in oven and autoclave, such as to perform in protection in chemical milling or acid bath etching.

There are multi-purpose functions for composite industry, like holding down vacuum bagging materials, thermocouple wires, masking-of and chemical milling protection.

The tape removes easily after the cure.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Polyester Carrier type: Silicone Adhesive type: Color: Blue Total thickness: 163µm Carrier thickness: 125µm Adhesive thickness: 38µm 205°C Maximum use temperature: Elongation on break: 120%

#### **► SIZE**

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **▶** NOTE

Other sizes are available on special order.

### TECHNICAL DATA SHEET

SK2AT205-4

High tack adhesive Tape

Back to range

#### DESCRIPTION

Tape is high temperature and tensile strength polyester film coated with high tack pressure sensitive silicone adhesive. AT205-4 could be used for heavy duty hold down applications where a high level of adhesion is required.

This tape is designed to perform in masking applications and chemical milling protection requiring high chemical resistance.

The tape removes easily after the cure.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Polyester Carrier type: Adhesive type: Silicone Color: Green Total thickness: 100µm Carrier thickness: 25µm Adhesive thickness: 75µm Maximum use temperature: 205°C Elongation on break: 100%

#### **► SIZE**

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### ▶ NOTE

Other sizes are available on special order.



SK2AT205-5

### Strong tear resistant polyester adhesive tape

Back to range

#### DESCRIPTION

SK2AT205-5 is a strong tear resistant polyester film combined with a high temperature resistant, proprietary blended, rubber adhesive.

The strong, conformable, polyester backing allows easy removal with no breaking or slivering. The high temperature, non-silicone adhesive will strip clean leaving only minimum residue. This tape is an excellent choice in applications where silicone contamination is unacceptable.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Polyester Carrier type:

Adhesive type: High temperature rubber

Color Green Total thickness: 100µm Backing thickness 50 µm Adhesive thickness: 50 µm Adhesion to Steel 7 N/25mm Temperature resistance 45 min. 205°C

Tensile Strength 225 N/25mm

Elongation on break: 100%

#### APPLICATION

This tape is designed to meet the demanding temperature and pressure conditions of autoclave and composite bonding applications. It is also usable as a masking tape for powder coating applications.

#### **►** SIZE

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C

in original packing.



SK2AT205-5

Strong tear resistant polyester adhesive tape

# ▶ NOTE

The performance of adhesive products is affected by many factors: heat, humidity, type of substrate, texture, inks used, and application technique. However, the purchaser must test the suitability of this product for his intended use under his own operating conditions. These products are not suitable for prolonged outdoor exposure.



SK2AT205-6

All-purpose polyester adhesive tape with non-silicone adhesive

Back to range

## DESCRIPTION

SK2AT205-6 is a strong tear resistant polyester film combined with a high temperature resistant, proprietary blended, rubber adhesive.

The strong, comformable, polyester backing allows easy removal with no breaking or slivering. The high temperature, non-silicone adhesive will strip clean leaving only minimum residue. This tape is an excellent choice in applications where silicone contamination is unacceptable.

This product is used in various manufacturing processes of parts made of composite materials.

## ► TECHNICAL DATA

Carrier type: Polyester

Adhesive type: High temperature rubber

Tensile Strength: 100 N/25mm

Elongation on break: 90%

## APPLICATION

This tape is designed to meet the demanding temperature and pressure conditions of autoclave and composite bonding applications.

### **► SIZE**

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.



SK2AT205-6

All-purpose polyester adhesive tape with non-silicone adhesive

## **►** NOTE

The performance of adhesive products is affected by many factors: heat, humidity, type of substrate, texture, inks used, and application technique. However, the purchaser must test the suitability of this product for his intended use under his own operating conditions. These products are not suitable for prolonged outdoor exposure.

# TECHNICAL DATA SHEET

SK2AT205-7

**Adhesive Tape** 

Back to range

## DESCRIPTION

SK2AT205-7 is a 25-micron polyester film carrier with the silicone adhesive system. This is a tough, thin, abrasion resistant tape used in applications requiring temperature performance up to 205°C, non-corrosive adhesive system and good solvent resistance. This product is used in various manufacturing processes of parts made of composite materials.

# ► TECHNICAL DATA

Polyester Carrier type: Adhesive type: Silicone Color: Red Total thickness: 100µm Carrier thickness: 25µm Adhesive thickness: 75µm 205°C Maximum use temperature Elongation on break: 100% Adhesion to steel: 7 N/25mm 100 N/25mm Tensile strength:

# **► SIZE**

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperature from +10°C until +30°C in the original packing.



# **▶** NOTE

Other sizes are available on special order.

# TECHNICAL DATA SHEET

SK2AT205-8

# High strength polyester adhesive tape

Back to range

# DESCRIPTION

SK2AT205-8 – high-strength, polyester tape, that combines high temperature resistance and rubber based patented adhesive for application in extreme conditions, that require high strength of tape.

Solid and easy to use polyester carrier allows to remove tape without rupture. High temperature, non-silicone adhesive provides clean removal without surface marks. This tape suits perfectly processes where no silicone is allowed.

## **▶ TECHNICAL DATA**

Carrier type: Polyester

Adhesive type: High temperature rubber

Color: Green
Total thickness: 175µm
Carrier thickness: 125µm
Adhesive thickness: 50µm
Thermal resistance: 205°C
Max. elongation: 150%

# **▶** APPLICATION

This tape is used at high temperature and pressure applications in autoclave at manufacturing of composite parts. Product can be used as masking tape at powder coating application.

### ► SIZE

Width	Length	Packaging
25mm	66m	36 rolls/cs
50mm	66m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperature from +10°C until +30°C in the original packing.

## **► NOTE**

Various factors influence technical characteristics of adhesive: heat, humidity, substrate type, texture, coloring agent used and application method. This product is not recommended to use at long-term external environment conditions.



SK2AT260-4

**Adhesive Tape** 

Back to range

## DESCRIPTION

SK2AT260-4 is a PFTE tape with silicone adhesive. The product will release from most resin systems. It is ideal for use on tooling blocks and all areas where high elongation and release is needed. It forms to critical contours and mould surfaces while offering multiple releases or may be used to cover multiple detail mold seams. SK2AT260-4 provides a semi-permanent release on cured tooling rubber and pressure intensifiers and mandrels.

This product is used in various manufacturing processes of parts made of composite materials.

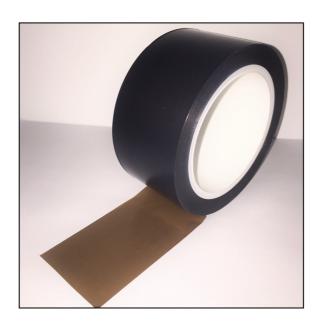
# ► TECHNICAL DATA

PTFE Carrier type: Adhesive type: Silicone Carrier thickness: 0.050 mm 0.041 mm Adhesive thickness: Total thickness: 0.091 mm Elongation at break: ≥140% Peel Adhesion (25°C): 3 N/cm Tensile Strength CD: ≥50 N/cm

Dielectric strength

(specimen 0,5 mm thick): ≥40 KV/mm

Color: Brown Maximum use temperature: 260°C





SK2AT260-4

**Adhesive Tape** 

# **► SIZE**

Width	Length	Packaging
25 mm	33 m	72 rolls/cs
50 mm	33 m	36 rolls/cs

Shelf life: 12 months in original packing

Storage conditions: it is recommended to store at temperature from -20° C to +30°C in the original packing.

# **▶ NOTES**

Other widths are available on request. Max. width is up to 600 mm.



SK2AT260-5

**Adhesive Tape** 

Back to range

# DESCRIPTION

Adhesive tape SK2AT260-5 is manufactured from PTFE film coated with silicone pressure sensitive adhesive with the highest technology available on the market with an accurate process parameter in line quality control.

Main applications: high temperature insulation product for slip, anti-friction and release surfaces (composite lay-up; roller wrapping, plate masking, heat sealing in vacuum bagging application); excellent release surface on packaging and heat sealing equipment; in aerospace industry used in phase insulation for bundling end turns, spot bundling, anchor breakouts and to protect airframe wire harnesses.

# Product advantages:

- High thermal stability thanks to the high temperature silicone adhesive
- Chemical inertness (non-adhesive side)
- Superior flame resistance
- Higher dielectric and tensile strength
- Elongation which enables it to be applied with automatic wrapping equipment

This product is used in various manufacturing processes of parts made of composite materials.

# **▶ TECHNICAL DATA**

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Carrier type:	PTFE

Adhesive type: High temperature silicone

Color: Orange

Carrier thickness: 0.050 mm **ASTM D3652** Adhesive thickness: 0.040 mm **ASTM D3652** Total thickness: **ASTM D3652** 0.090 mm Tensile Strength: ≥43 N/cm **ASTM D3759** Elongation at break: ≥130% **ASTM D3759** Adhesion to steel: ≥2,8 N/cm **ASTM D3330** 

NEMA/UL Temperature Class\*: H (180°C)

Breakdown Voltage: 6500 V ASTM D150 Volume Resistivity:  $\leq 10^{17} \, \Omega \cdot \text{cm}$  ASTM D257 Surface resistivity:  $\leq 10^{16} \, \Omega$  ASTM D257

Maximum use temperature 260°C

<sup>\*</sup> Max use temperature: 260°C (for single use max 315°C). Anyway testing prior to use is recommended.



SK2AT260-5

**Adhesive Tape** 

# **► SIZE**

Width	Length	Packaging
25,4 mm	33 m	72 rolls/cs
50,8 mm	33 m	36 rolls/cs

Shelf life: 12 months in original packing

Storage conditions: it is recommended to store at temperature from +10° C to +30°C in the

original packing out of direct sunlight.

# **NOTES**

The product is available as master log form 33m x 635mm. Minimum available width is 12,7 mm.



SK2AT260-8

# PTFE coated glass fabric adhesive tape

Back to range

## **▶** DESCRIPTION

Adhesive tape SK2AT260-8 is PTFE coated glass fabric self-wound adhesive bundling end turns, spot bundling, anchor breakouts and to protect airframe wire harnesses. These tapes provide a slick surface on process machinery and offers an extremely low coefficient of friction which, in combination with a pressure sensitive silicone adhesive, creates a non-stick surface that performs at elevated temperatures.

This product is used in various manufacturing processes of parts made of composite materials.

# ► TECHNICAL DATA

Weight: 155 g/m<sup>2</sup>
Nominal thickness: 0,08 mm
Tensile strength: 800 N/5 cm

PTFE content: 68% Adhesive type: Silicone

Temperature resistance: -73°C +260°C

## ► SIZE

Thickness	Width	Length
0,08 mm	50 mm	33 lm
0,08 mm	200 mm	33 lm

Shelf life: 12 months in original packing

Storage conditions: it is recommended to store at temperature from +10° C to +30°C in the original packing out of direct sunlight.

# **TECHNICAL DATA SHEET**

SK2AT399-1

Adhesive tape

Back to range

## DESCRIPTION

SK2AT399-1 is polyimide tape coated with a fully cured silicone adhesive for using in high temperature curing processes up to 399°C. The tape is dimensionally stable at high temperatures, flame retardant and chemical resistant.

This product is used in various manufacturing processes of parts made of composite materials.

## ► TECHNICAL DATA

Carrier type: Polyimide Adhesive type: Silicone Color: Amber Total thickness: 63µm Carrier thickness: 25µm Adhesive thickness: 38um 399°C Maximum use temperature: Elongation on break: 50%

# **► SIZE**

Width	Length	Packaging
25mm	33m	36 rolls/cs
50mm	33m	16 rolls/cs

Shelf life: 18 months in original packing

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### ▶ NOTE

Other sizes are available on special order.

# TECHNICAL DATA SHEET

SK2AT399-2

Double coated adhesive tape

Back to range

## DESCRIPTION

SK2AT399-2 is polyimide tape double side coated with a fully cured silicone adhesive for using in high temperature curing processes up to 399°C. The tape is dimensionally stable at high temperatures, flame retardant and chemical resistant.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Carrier type: Polyimide Adhesive type: Silicone Color Amber Total thickness: 135µm Carrier thickness: 25µm Adhesive thickness: 55um 399°C Maximum use temperature Elongation on break: 63%

# **► SIZE**

Width	Length	Packaging
25mm	33m	36 rolls/cs
50mm	33m	16 rolls/cs

Shelf life: 18months in original packing

Storage conditions: It is recommended to store at temperature from +10°C until +30°C in the original packing.

### ▶ NOTE

Other sizes are available on special order.



# **RUBBERS**

# **RANGE**

Back to content

Name	Description	Max. use T°C	Elongation on break	Color
SK2RS204-1	Cured silicone rubber	204°C	1100%	Transparent
SK2RS204-2	Uncured silicone rubber	204°C	1100%	Transparent
SK2RS204-3	Uncured non-silicone tooling rubber	204°C	400%	Black
SK2RS230-1	Cured silicone rubber	230 °C	650%	Transparent
SK2RS230-2	Uncured silicone rubber	230 °C	-	Transparent
SK2RS300-1	Two component casting silicone compound	300°C	350%	Transparent
SK2RS343-1	Cured high temperature elastomer	343°C	210%	Black
SK2RS343-2	Uncured high temperature elastomer	343°C	210%	Black
SK2RS200-10	Two-component silicon sprayable	200°C	500%	Light Blue
SK2RS200-13	Distribution pistolet	200°C	-	-

# TECHNICAL DATA SHEET

SK2RS204-1

**Cured Rubber** 

Back to range

## DESCRIPTION

SK2RS204-1 is a 40 durometer, high strength compound with a catalyst cured system. It is a cured transparent elastomer with excellent elongation properties and low modulus values, which make it an ideal choice for deep, draw vacuum applications.

Cured sheet is offered in widths up to 1,83m. The product has a service temperature range of 38°C to 204°C.

The physical properties shown below were obtained on molded 2,032mm thick ASTM samples. They are typical SK2RS204-1 high strength, platinum cure system, silicone compound, but they should not be used to set Quality Control Specification minimum requirements.

This product is used in various manufacturing processes of parts made of composite materials.

# **▶ TECHNICAL DATA**

Material type: Silicone elastomer

Color: Translucent

Maximum use temperature: 204°C
Hardness: 40Shore A
Tensile Strength: 1600psi
Elongation at Break: 1100%
Modulus at 100% Elongation: 330psi
Tear Strength: 250ppi
Specific Gravity: 1.11

Compression Set 16% by 22 Hours at 177°C Linear coef. of thermal expansion: 1,67x10<sup>4</sup> in/in/F (24°C -177°C)

# **▶** NOTE

Sheets over 1,83m wide are available on special order and custom fabricated vacuum blankets much larger, quoted upon request.

Available thicknesses: 0.76mm, 1.52mm, 2.16mm, 3.18mm

Available length: 0.91mm, 1.22m, 1.37mm, 1.83mm

MOQ of 1 Roll for each thickness has to be ordered.

Shelf life: 5 years

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C

in original packing.



SK2RS204-2

**Cured Rubber** 

Back to range

### DESCRIPTION

SK2RS204-2 is a 40 durometer, high strength compound with a catalyst cured system. It is an uncured transparent elastomer with excellent elongation properties and low modulus values, which make it an ideal choice for deep, draw vacuum applications.

Uncured sheet is offered in widths up to 1,37m. The product has a service temperature range of 38°C to 204°C.

The physical properties shown below were obtained on molded 2,032mm thick ASTM samples. They are typical SK2RS204-2 high strength, platinum cure system, silicone compound, but they should not be used to set Quality Control Specification minimum requirements.

This product is used in various manufacturing processes of parts made of composite materials.

# **▶ TECHNICAL DATA**

Material type: Silicone elastomer

Color: Translucent

Maximum use temperature: 204°C
Hardness: 40Shore A
Tensile Strength: 1600psi
Elongation at Break: 1100%
Modulus at 100% Elongation: 330psi
Tear Strength: 250ppi
Specific Gravity: 1.11

Compression Set: 16% by 22 Hours at 177°C Linear coef. of thermal expansion: 1,67x10<sup>4</sup> in/in/F (24°C -177°C)

## ▶ NOTE

Available thicknesses: 0.76mm, 1.52mm, 2.16mm, 3.18mm

Available length: 0.91mm, 1.22m, 1.37mm. Maximum width is 1.37m.

MOQ of 1 Roll 2,8m<sup>2</sup> for each thickness has to be ordered.

Shelf life: 6 months.

Storage conditions: it is recommended to store at temperatures between -20°C and +4°C

in original packing.



SK2RS204-3

# Uncured non-silicone tooling rubber

Back to range

### DESCRIPTION

SK2RS204-3 is an uncured, non-silicone rubber for manufacture of pressure caul sheets, flexible mandrels, and rubber tooling. The product caul sheets improve part quality on the vacuum bag side of the part.

SK2RS204-3 pressure intensifier provides uniform pressure distribution during autoclave processing. The product will take high temperature similar to silicone rubbers but will not cause silicone contamination. SK2RS204-3 is dimensionally stable when reinforced with prepregs, which bond well and do not generate volatiles that could also cause delamination.

## ADVANTAGES

- Reduce scrap with improved part quality due to better thickness control and corner consolidation
- Reduce rework by eliminating surface wrinkles, voids, and porosity
- Avoid part distortion due to uneven laminate consolidation during cure

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: Non silicone rubber

Color: Black
Maximum use temperature: 204°C
Elongation at break: 400%
Hardness: 60 Shore A
Tensile strength: 11 MPa

## APPLICATION

# **Moulding Guidelines:**

- Mould SK2RS204-3 off a part, dummy part, or mould which is stable at high temperature and capable of high pressure
- Tack is temperature dependent and can be controlled with additional heat to assure adhesion to vertical surfaces, sharp corners, and complex shapes
- SK2RS204-3 is not self-releasing and must be covered with a release material, bondable one side release film during the layup process



SK2RS204-3

# **Uncured non-silicone tooling rubber**

 Adhesive tape SK2AT260-4 or film SK2TR260-4 can also be applied to cured SK2RS204-3

# Recommended Cure:

- Apply vacuum bag throughout cure cycle and pressurise autoclave to 7 bar (100 psi), minimum recommended pressure is 3 bar (45 psi)
- Heat to 176°C and hold for 2 hours, then cool to room temperature before removing vacuum and demoulding from master mould

## **► SIZE**

Thickness	Width	Length
1,6 mm	137cm	15,24m

Shelf life: 24 months from date of shipment

Storage conditions: it is recommended to store at temperature of 22°C in the original packing. Do not freeze.

### ▶ NOTE

The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, testing is recommended prior to use.

# TECHNICAL DATA SHEET

SK2RS230-1

**Cured Silicon Elastomer** 

Back to range

# DESCRIPTION

SK2RS230-1 is a 50 durometer, high strength silicone compound for use as a reusable vacuum blanket in forming composite aerospace articles.

SK2RS230-1 possesses excellent durability, high temperature resistance and high elongation properties; the material is effective in the forming of intricate shapes. Widely used in vacuum and thermoforming presses and serving industries in the Composite sectors for parts within Aerospace.

The product has a service temperature range of -60°C to 230°C.

The mechanical properties shown below were obtained on ASTM samples.

This product is used in various manufacturing processes of parts made of composite materials.

## **▶ TECHNICAL DATA**

### **General characteristics**

Material type: Silicone compound

Color Transparent

Maximum use temperature 230°C
Brittle point -80°C
Limiting Oxygen Index 24.0 %

Thermal Conductivity 0.24 W.m<sup>-1</sup>.K<sup>-1</sup>

Radiation Resistance >105 Grays (10<sup>7</sup> Rads) typical

Dielectric Strength 23 kV.mm<sup>-1</sup>

Dielectric Constant 2.9
Dissipation Factor  $3x10^{-4}$ Volume Resistivity  $3x10^{15}Ω.cm$ 

# **Mechanical properties**

Hardness 50±5 Shore A
Tensile Strength 1015 psi min
Elongation to Failure 650% min
Tear Strength 200ppi min

Compression Set 35% max by 24 Hours at 150°C, 30 minutes recovery

# **▶** NOTE

Supplied in continuous roll lengths. Widths of up 1800mm.



# SK2RS230-1

# **Cured Silicon Elastomer**

Capability to color match.

Back to range

Available thicknesses: 0.76mm, 1.52mm, 2.16mm, 3.18mm

Standard width: 1m

MOQ is 10 sqm. MOQ has to be ordered.

Shelf life: 5 years

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C

in original packing.

# TECHNICAL DATA SHEET

SK2RS230-2

# **Uncured Silicon Elastomer**

Back to range

## DESCRIPTION

SK2RS230-2 is an uncured 50 durometer, high strength silicone compound for use as a reusable vacuum blanket in forming composite aerospace articles.

SK2RS230-2 possesses excellent durability, high temperature resistance and high elongation properties; the material is effective in the forming of intricate shapes. Widely used in vacuum and thermoforming presses and serving industries in the Composite sectors for parts within Aerospace.

The product has a service temperature range of -60°C to 230°C.

The mechanical properties shown below were obtained on ASTM samples.

This product is used in various manufacturing processes of parts made of composite materials.

## **▶ TECHNICAL DATA**

### **General characteristics**

Material type: Silicone compound

Color Transparent

Maximum use temperature 230°C
Brittle point -80°C
Limiting Oxygen Index 24.0 %

Thermal Conductivity 0.24 W.m<sup>-1</sup>.K<sup>-1</sup>

Radiation Resistance >105 Grays (10<sup>7</sup> Rads) typical

Dielectric Strength 23 kV.mm<sup>-1</sup>

Dielectric Constant 2.9
Dissipation Factor  $3x10^{-4}$ Volume Resistivity  $3x10^{15}Ω$ .cm

# **Mechanical properties**

Hardness 50±5 Shore A
Tensile Strength 1015 psi min
Elongation to Failure 650% min
Tear Strength 200ppi min

Compression Set 35% max by 24 Hours at 150°C, 30 minutes recovery

# **▶** NOTE

Supplied in continuous roll lengths. Widths of up 1800 mm.



SK2RS230-2

**Uncured Silicon Elastomer** 

Capability to color match.

Available thicknesses: 0.76mm, 1.52mm, 2.16mm, 3.18mm

Standard width: 1m.

MOQ is 10 sqm. MOQ has to be ordered.

Shelf life: 6 months

Storage conditions: it is recommended to store at temperatures between -20°C and +4°C

in original packing.



SK2RS300-1

# Two component casting silicone compound

Back to range

## DESCRIPTION

SK2RS300-1 – two component thermoresistent casting compound designed for manufacturing of flexible moulds, mandrels and pressure pads. Product can be used for manufacturing of moulds in the rapid prototyping industry.

Big difference of thermal coefficients of expansion between SK2RS300-1 and tooling makes it useful as casting pressure distribution pads and trapped rubber moulds.

## ► TECHNICAL DATA

- High transparency
- Good chemical resistance
- Vulcanized by poly-addition
- Very easy to mix and to cast
- Very low shrinkage when hardening at room temperature

PHYSICAL PROPERTIES				
COMPOSITION		PART A	PART B	MIXING
Mix ratio by weight		100	10	
Aspect		Thick liquid	Liquid	Liquid
Colour		Translucent	Transparent	Transparent
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	43,000	10,000	40,000
Pot life at 23°C on 150g (min)		-	-	60
Demoulding time at 23°C (hour)		-	-	16
Demoulding time at 40°C (hour) Curing after gel		-	-	10



SK2RS300-1

# Two component casting silicone compound

MECHANICAL PROPERTIES 1			
Hardness	ISO 868 : 2003	Shore A1	38
Tensile strength	ASTM D412C : 1997	MPa	5
Elongation at break	ASTM D412 : 1997	%	350
Tear strength Notched specimen	ASTM D624B : 1992	KN/m	24
Coefficient of linear expansion	-	10 <sub>-4</sub> .K <sub>-1</sub>	3
Linear shrinkage	-	%	< 0.1
Linear shrinkage after curing at 70°C (curing atfer gel)	-	%	< 0.7

(1) Average values obtained on standard specimens after hardening 7 days at room temperature.

## APPLICATION

Mix parts A and B for 2 minutes. Pour the whole in a container 5 times bigger than the volume of mixing. Mix again the whole for 30 seconds. Place the material in the vacuum chamber to remove trapped air, degas for 15 minutes maximum. Remove the material from vacuum chamber. Cast in the frame for 10 to 15 minutes. Degas the mixture. Leave it cure at room temperature or 40°C (max temperature advised).

# **► NOTE**

Always allow enough time to be able to degas the mixture once cast on the pattern. It is possible to heat SK2RS300-1 to accelerate its hardening but this may induce a higher shrinkage than the one obtained at 23°C as well as a higher hardness.

We advise to heat up the cast silicone after gel to 40°C overnight before demoulding a nd cutting.

Polyaddition silicone elastomers show a quite high sensitivity towards some substances like amines, sulphides or catalysts of other types of silicones (ex: polyester mastics, modelling pastes). The effect of this irreversible inhibition is a sticky surface aspect in contact with the polluted surfaces.



SK2RS300-1

Two component casting silicone compound

# HANDLING PRECAUTIONS

Normal health and security precautions should be observed when handling these products:

- Ensure good ventilation
- Wear gloves and safety glasses

For further information, please consult the material safety data sheets.

# STORAGE CONDITIONS

Shelf life: 12 months

Storage conditions: It is recommended to store in a dry place in original unopened

containers at a temperature between 15 and 25°C.

# **PACKAGING**

Part A	Part B
1 x 10 kg	1 x 1 kg
1 x 20 kg	1 x 2 kg
1 x 200 kg	1 x 20 kg

## **►** GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of our products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.

# TECHNICAL DATA SHEET

SK2RS343-1

**Cured Elastomer** 

Back to range

### DESCRIPTION

The airspace industry is working with composite resins which will withstand higher temperature extremes than epoxy resins currently in use. SK2RS343-1 is a 75 durometer high temperature resistant fluoroelastomer cured compound. It has excellent resistance to acids, bases, high pH corrosion inhibitors, sour gas and oil, high pressure steam and alcohols. It is unusual in that it also has fair resistance to aromatic solvents and fuels, as well as ketones and low molecular weight esters and ethers. It has a service temperature range of -23°C to 343°C. This elastomer can be used for production of pressure distribution pads, internal pressure intensifiers, pressure debulking blankets and high temperature vacuum blankets in applications where limited stretch or movement is involved.

SK2RS343-1 is not recommended for service in chlorinated solvents, Freon refrigerant, and tetrahydrofurane solvent.

The physical properties shown below were obtained on molded 2,032mm thick ASTM samples. They are typical of SK2RS343-1 but they should not be used to set Quality Control Specification minimum requirements.

This product is used in various manufacturing processes of parts made of composite materials.

# **► TECHNICAL DATA**

Material type: Fluoroelastomer

Color: Black 343°C Maximum use temperature: Hardness: 75Shore A Tensile Strenath: 2600psi Elongation at Break: 210% Modulus at 100% Elongation: 1150psi Tear Strength: 128ppi Specific Gravity: 1.58

Compression Set: 31% by 22 Hours at 177°C Linear coef. of thermal expansion: 8,8x10<sup>5</sup> in/in/F (24°C -177°C)

#### ▶ NOTE

MOQ of 1 Roll for each thickness has to be ordered.

Available thicknesses: 0.76mm, 1.52mm, 2.16mm, 3.18mm

Available length: 0.91mm, 1.22m, 1.37mm. Maximum width is 1.37m. Sheets over 1,37m wide are available on special order and custom fabricated vacuum blankets much larger, quoted upon request.

Shelf life: 5 years

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C

in original packing.

# S T E V I K

# TECHNICAL DATA SHEET

SK2RS343-2

**Uncured Elastomer** 

Back to range

# **▶** DESCRIPTION

The airspace industry is working with composite resins which will withstand higher temperature extremes than epoxy resins currently in use. SK2RS343-2 is a 75 durometer high temperature resistant fluoroelastomer uncured compound. It has excellent resistance to acids, bases, high pH corrosion inhibitors, sour gas and oil, high pressure steam and alcohols. It is unusual in that it also has fair resistance to aromatic solvents and fuels, as well as ketones and low molecular weight esters and ethers. It has a service temperature range of -23°C to 343°C.

This elastomer can be used for production of pressure distribution pads, internal pressure intensifiers, pressure debulking blankets and high temperature vacuum blankets in applications where limited stretch or movement is involved.

SK2RS343-2 is not recommended for service in chlorinated solvents, Freon refrigerant, and tetrahydrofurane solvent.

The physical properties shown below were obtained on molded 2,032mm thick ASTM samples. They are typical of SK2RS343-1 but they should not be used to set Quality Control Specification minimum requirements.

This product is used in various manufacturing processes of parts made of composite materials.

# **▶ TECHNICAL DATA**

Material type: Fluoroelastomer

Color: Black Maximum use temperature: 343°C Hardness: 75 Shore A Tensile Strength: 2600psi Elongation at Break: 210% Modulus at 100% Elongation: 1150psi Tear Strength: 128ppi Specific Gravity: 1.58

Compression Set: 31% by 22 Hours at 177°C Linear coef. of thermal expansion: 8,8x10<sup>5</sup> in/in/F (24°C -177°C)

## **▶** NOTE

Available thicknesses: 0.76mm, 1.52mm, 2.16mm, 3.18mm

Available length: 0.91mm, 1.22m, 1.37mm. MOQ of 1 Roll for each thickness has to be ordered. Maximum width is 1.37m. Sheets over 1,37m wide are available on special order and custom fabricated vacuum blankets much larger, quoted upon request.

Shelf life: 6 months

Storage conditions: it is recommended to store at temperatures between -20°C and +4°C in original packing.

# TECHNICAL DATA SHEET

SK2TM200-11

Two-component silicon sprayable

Back to range

# DESCRIPTION

Gelcoat SK2TM200-11 is a blend of specially formulated high temperature resins, color pigments, and additives designed to produce high gloss mold surfaces. It allows for rapid build-up of gel coat and gives hard, durable, impact and chemical resistant tools and molds. Back-up reinforcement may be applied after a firm gel is obtained. This normally takes about 75 - 115 minutes after application. It is most commonly used in high temperature tools for epoxy infusion, cultured marble molds, thermoforming molds, FRP molds and RTM mold repair. It contains no styrene and is low odor.

## ► TECHNICAL DATA

- High gloss
- Rapid build-up
- High service temperature
- •
- Styrene-free

- Impact and chemical resistant
- Excellent finishing and afterwork
- Epoxy compatible
- •
- Can be used as a top coat on non post-cured epoxy

PHYSICAL PROPERTIES				
Composition		Polyester resin	Hardener	Mixed
Mix ratio by weight		100	2	
Aspect		Liquid	Liquid	Liquid
Colour		Clear beige	Colorless	Clear beige
Density at 25°C	g/cc	1.30	1.20	1.30
Thixotropic index		7.2		

### HANDLING PRECAUTIONS



SK2TM200-11

# Styrene Free Polyester Gel Coat

Pot life (102g) at 25°C	minutes		22

# PROCESSING CONDITIONS

- Thoroughly blend 100 parts resin with 2 parts catalyst at indicated ratio for 1 to 2 minutes in a clean dry container
- Carefully scrape the surfaces while blending to ensure complete mixing and uniformity
- Gelcoat SK2TM200-11 can be colored according to customer's choice by adding coloring paste to match the designed mould color.

**ATTENTION:** Only color pastes on the polyester base are compatible with SK2TM200-11. Adding of 1% in weight of color paste gives a pure color.

Available colors of coloring pasts: green, white, blue. Minimum packing quantity of coloring paste: 1kg.

# PACKAGING AND COLORS

Артикул	Цвет	Siaze of packing
SK2TM200-11BG	Clear beige (neutral)	4,7 кг
SK2TM200-11BL	Clear beige + Blue coloring paste	4,7 kg + 1,0 kg
SK2TM200-11GN	Clear beige + Green coloring paste	4,7 kg + 1,0 kg
SK2TM200-11WH	Clear beige + White coloring paste	4,7 kg + 1,0 kg

## SURFACE PREPARATION AND APPLICATION

- SK2TM200-11 should always be applied to properly prepared surfaces with mold release applied to surfaces as necessary
- Product is designed to be applied by brush or spraying (can be applied with spray gun at 3 / 4 bars with a 2.5 mm nozzle)
- For best performance, SK2TM200-11 should be applied in multiple passes of 0.07

   0.15 mm film thickness each to a final film thickness of 0.6 mm. Wait 2 3 minutes between passes. This technique minimizes air entrapment and pinholes in the gel coat.



SK2TM200-11

**Styrene Free Polyester Gel Coat** 

Wait for about 90 minutes minimum before starting lamination. Tests have been performed giving a good adhesion after 36 hours at 20°C.

MECHANICAL AND THERMAL PROPERTIES (1)				
Hardness at demold	ASTM D-2240	Shore D	87	
Coefficient of thermal expansion	ASTM E-1545	10 <sup>-6</sup> K <sup>-1</sup>	120	
Service temperature °C 204				

(1) Average values on standard specimens cured 3 hours at 150°C.

# HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- ensure good ventilation
- wear gloves, safety glasses, waterproof clothes

For further information, please consult the product safety data sheet.

### **► STORAGE**

This product has a shelf life of 6 months as indicated by the expiration date on the container when stored in original unopened containers between 15 - 25°C. Any opened can must be tightly closed.

# **▶** GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of the products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident, which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.



# **TOOL RELEASE**

# **RANGE**

Back to content

Name	Description	Max. use T°C	Color
	Semi-permanent tooling release films		
SK2TR260-2	Medium weight glass fabric coated with PTFE and with silicone adhesive one side and liner.	260°C	Brown
SK2TR260-3	Light glass fabric coated with PTFE and with silicone adhesive one side and liner	260°C	Brown
SK2TR260-4	PTFE film coated one side with silicone adhesive and liner with high elongation	260°C	Brown
	Cleaning agents		
SK2TR000-1	Cleaner for the removal of silicone, sealing compounds and release agents' rests	n/a	Colorless
SK2TR000-2	Universal cleaner for composite, steel and alumunium moulds	n/a	Colorless
SK2TR000-3	Tool cleaner for working tools for acetone replacement	n/a	Colorless
	Sealers Sealers Sealers Sealers		
SK2TR450-1	Modelmaster sealer / primer for porous surfaces to seal them with a high gloss finish	450°C	Black / Pink
SK2TR450-2	Mould sealer for new or freshly cleaned mould surfaces	450°C	Colorless
SK2TR450-3	Mould sealer for new or freshly cleaned mould surfaces, multipropose, fast evaporating	450°C	Yellow
	Release agent solvent based		
SK2TR450-4	Semi-permanent, solvent-based mould release agent, multipropose	450°C	Colorless
SK2TR450-5	Semi-permanent, solvent-based mould release agent with high level of slipping, multipropose	450°C	Colorless
SK2TR450-6	Semi-permanent, solvent-based mould release agent, multipropose, fast curing, no sealing necessay	450°C	Colorless
SK2TR450-7	Semi-permanent, solvent-based mould release agent with high level of slipping, multipropose, fast curing	450°C	Colorless
SK2TR450-12	Semi-permanent, solvent-based mould release agent, very fast drying	450°C	Colorless
SK2TR450-13	Semi-permanent, solvent-based mould release agent with ultra fast curing	450°C	Colorless
SK2TR450-14	Semi-permanent, solvent-based mould release agent for thermoset resins	450°C	Colorless



# **TOOL RELEASE**

# **RANGE**

	Release agent water based			
SK2TR450-8	Water based semi-permanent release agent, no sealing necessary, fast drying	450°C	Cream colored	
SK2TR450-9	Waterbase semipermanent release agent specialy developed for aircraft industry	450°C	White	
SK2TR450-10	Water based PTFE release agent, without any silicones or silanes	450°C	Beige	
SK2TR450-11	Sprayable waterbased semi-permanent release agent, no sealing necessary, fast drying	450°C	White	
	Release agent wax based			
SK2TR150-1	Release Paste / sealer wax based	150°C	Yellow	
SK2TR150-2	Liquid solvent based wax for multiple demouldings for high gloss moulds	150°C	White	
SK2TR250-1	Release liquide / sealer wax-water based	250°C	Blue	
In	ternal release agents, additives and special surface to	reatment		
SK2TR150-3	Release agent for polymer concrete, fast drying, special for abrasive fillers	150°C	White	
SK2TR000-4	Additive reducing the surface tension of mould, against fisheyes, increases the scratch resistance of the surface	n/a	Yellow	
SK2TR250-2	Internal mould release agent for minimize consumption of external release agents by use with epoxy resins	250°C	Yellow	
SK2TR250-3	Internal mould release agent for minimize consumption of external release agents by use with polyester resins	250°C	Colorless	

# TECHNICAL DATA SHEET

SK2TR260-2

Semi-permanent tool release

Back to content

### **▶** DESCRIPTION

SKTR260-2 is a PTFE-coated medium weight glass fabric with a high performance, silicone pressure-sensitive adhesive on one side. The PTFE surface exhibits good release properties in demanding high temperature applications. The product has a yellow corrugated liner to protect the adhesive surface and to ease identification and use.

This film is ideal for use on flat areas where release properties are needed, on the mould surfaces while offering multiple releases. SKTR260-2 will release from most resin systems. This product is used in various manufacturing processes of parts made of composite materials.

## ► TECHNICAL DATA

Carrier type: PTFE-coated glass

Adhesive type: Silicone

Adhesion: 6,2N/cm ASTM-D 330-83

Color Braun
Total thickness: 165µm
Carrier thickness: 120µm
Adhesive thickness: 45µm
Maximum use temperature 260°C

## **► SIZE**

Product reference	Width	Length
SK2TR260-2BR165MC10033	1000mm	33m
SK2TR260-2BR165MC10016.5	1000mm	16.5m

Shelf life: 12 months in original packing

Storage conditions: It is recommended to store at temperature from +16°C until +24°C in the original packing.

## ▶ NOTE

Material is also available acrylic adhesive and selfwound (i.e. no liner)

Material should be applied carefully lifting the edge of the backing, then applying the adhesive side to the tool surface. The remainder of backing should be carefully removed while pressing of SK2TR260-2 onto tool surface with straight edge. After applying, we recommend to apply vacuum bag during 24 hours to remove any residual air. This cycle under vacuum will provide better results.

# TECHNICAL DATA SHEET

SK2TR260-3

Semi-permanent tool release film

ASTM-D 330-83

Back to content

## DESCRIPTION

SKTR260-3 is a PTFE-coated light glass fabric with a high performance, silicone pressuresensitive adhesive on one side. The PTFE surface exhibits good release properties in demanding high temperature applications. The product has a yellow corrugated liner to protect the adhesive surface and to ease identification and use.

This film is ideal for use on flat areas where release properties are needed, on the mould surfaces while offering multiple releases. SKTR260-3 will release from most resin systems. This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Carrier type: PTFE-coated glass

Adhesive type: Silicone Adhesion: 5,3N/cm

Color Braun
Total thickness: 115µm
Carrier thickness: 70µm
Adhesive thickness: 45µm
Maximum use temperature: 260°C

#### **►** SIZE

Width	Length
1000mm	50m

Shelf life: 12 months in original packing

Storage conditions: it is recommended to store at temperature from +16°C until +24°C in the original packing.

# **▶** NOTE

Material is also available acrylic and selfwound (i.e. no liner)

Material should be applied carefully lifting the edge of the backing, then applying the adhesive side to the tool surface. The remainder of backing should be carefully removed while pressing of SK2TR260-3 onto tool surface with straight edge. After applying, we recommend to apply vacuum bag during 24 hours to remove any residual air. This cycle under vacuum will provide better results.



SK2TR260-4

Semi-permanent tool release film

Back to content

## DESCRIPTION

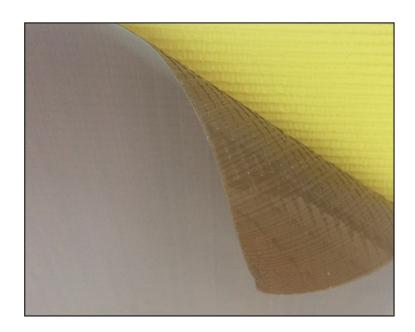
SKTR260-4 is high elongation PTFE film coated with a high temperature silicone adhesive and yellow liner.

This film is ideal for use on areas where high elongation and release properties are needed. It will conform to irregular shapes and mould surfaces while offering multiple releases. Film can be used as a semi-permanent release covering on moulds, pressure intensifiers and mandrels. SKTR260-4 will release from most resin systems.

This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

PTFE Carrier type: Adhesive type: Silicone Color: Brown Total thickness: 165µm Carrier thickness: 127µm Adhesive thickness: 38µm 5,8 N/cm 180° Peel adhesion (25°C): 260°C Maximum use temperature: Tensile strength: ≥24 N/mm<sup>2</sup> Elongation on break: ≥300% Dielectric strength: ≥70KV/mm





SK2TR260-4

Semi-permanent tool release film

# **► SIZE**

Width	Length
1000mm	30m

Shelf life: 12 months in original packing

Storage conditions: It is recommended to store at temperature from +10°C until +30°C in

the original packing.

# **►** NOTE

MOQ is 1 roll of 30 m<sup>2</sup>. Maximum width of 1200 mm is available on special order of 800 lm.

# TECHNICAL DATA SHEET

SK2TR000-1

Cleaner

Back to content

### DESCRIPTION

SK2TR000-1 is a solvent-based 'heavy duty' cleaner to clean working tools and surfaces during the processing of polyester and epoxy resin systems. This cleaner is especially suited for the removal of silicone containing polish residues on parts, which will be varnished or glued afterwards. An additionally use is the removal of sealing compounds and release agents. SK2TR000-1 is suited for the cleaning of working tools and surfaces and for the preparation of the composite sector.

Compare to acetone our cleaner doesn't evaporate so quickly from a surface therefore has more thorough cleaning effect.

This product is used in various manufacturing processes of parts made of composite materials.

# APPLICATION

Cleaner can be applied with a brush or a cloth. You can as well dip or spray the objects which have to be cleaned into SK2TR000-1. After the cleaner has penetrated the surface for a couple of minutes, simply wipe it off. Remains of cleaner SK2TR000-1 can easily be removed with a dry cloth.

# **► TECHNICAL DATA**

Appearance: Colourless liquid Composition: Mixture of solvents

Density [g/cm3]: Approx. 0.9

Flash Point [°C]: 30°C

## **► SIZE**

Packaging
Can of 9 kg
Can of 27 kg

# **▶ STORAGE**

The product should be stored in tightly sealed containers and has to be protected from frost, heat and direct sunlight. If these rules are obeyed, the product can be stored for at least 24 months.

### TECHNICAL DATA SHEET

SK2TR000-2

Cleaner

Back to content

#### DESCRIPTION

SK2TR000-2 is a universal super effective solvent-based cleaner generally used to remove residues of additives, such as waxes and oils, and release agents from various industrially applied mould materials (e. g. steel, aluminium, polyester, epoxy resins or glass-fibre reinforced plastics). SK2TR000-2 is used as a multi-purpose mould cleaner.

After cleaning with SK2TR000-2, please use SK2TR000-1 to remover rests of deep cleaner and prepare surface for treatment.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► APPLICATION

The objects to be cleaned are usually dipped into cleaner SK2TR000-2, allowing the product to penetrate the surface for 5-30 min depending on the degree of fouling. The soaked residues can easily be removed together with excess of cleaner by means of wiping the surface with a dry, clean cloth. Alternatively, SK2TR000-2 can be applied with a brush.

#### ► TECHNICAL DATA

Appearance: Colourless liquid Composition: Mixture of solvents

Density [g/cm3]: Approx. 0.8 Flash Point [°C]: Approx. 26°C

#### **► SIZE**

Packaging
Can of 24.9 kg
Drum of 166 kg

#### STORAGE



SK2TR000-3

**Tool cleaner** 

Back to content

#### DESCRIPTION

SK2TR000-3 is a solvent based high performance cleaner suitable for cleaning tools used for the processing of polyester- and epoxy resins. It can be used for the cleaning of any kind of tools.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

The items to be cleaned can either be dipped into SK2TR000-3 or the product can be sprayed or brushed onto the items. After a few minutes the surface can be easily wiped dry with a clean cloth.

#### **▶ TECHNICAL DATA**

Appearance: Colourless liquid

Composition: Solvent-based cleaner on glycol ether basis

Density [g/cm3]: Approx. 0.95

Flash Point [°C]: 80°C

#### **► SIZE**

Packaging
Can of 28.5 kg
Drum of 190 kg

#### **▶ STORAGE**

### TECHNICAL DATA SHEET

SK2TR450-1

Mould sealer/primer

Back to content

#### DESCRIPTION

SK2TR450-1 is a specially designed surface sealer for porous surfaces to seal them with a high gloss finish. The sealing impresses with its simple application. If handled properly, you neither have to sand nor to polish. The product is used for sealing of porous surfaces, specifically block materials, MDF etc.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

SK2TR450-1 is ready-to-use and should not to be diluted. The surface which has to be sealed must be absolutely dust free and free of grease residue. Optimal results are obtained by rubbing with a suitable lint free cotton cloth. Usually, two coatings with an eventual sanding using an abrasive fleece are sufficient for perfect sealing. However, the appropriate number of coating layers depends on the porosity of the surface. A minimum curing time of 1 h at room temperature (20 °C) has to be respected after each application in order to guarantee proper sealing of the surface. For a high-gloss surface we recommend a final paintwork with a spray gun. We recommend a spray gun nozzle of 0,5 mm diameter at 1-1,5 bar. For best release performance, we strongly recommend subsequent application of any semi-permanent release agent from category SK2TR. Both water- and solvent-based release agents will be adequate. Spray equipment should be thoroughly cleaned immediately from liquid residues using NC solvent, universal thinner or solvent naphtha. Cured Sealer SK2TR450-1 can only be mechanically cleaned / removed.

#### **▶ TECHNICAL DATA**

Appearance of liquid: Black / Pink

Color: Black / Transparent Composition: Resins solution

Density [g/cm3]: Approx. 1 Flashpoint: 44°C

Packaging	
Bottle 1,2 kg	



SK2TR450-1

Mould sealer/primer

#### **► STORAGE**

### TECHNICAL DATA SHEET

SK2TR450-2

Mould sealer

Back to content

#### DESCRIPTION

SK2TR450-2 is a solvent-based easy-to-use high-tech mould sealer. This product has specifically been developed for green, porous or repaired moulds to seal the mould before using regularly semi-permanent release agents from category SK2TR. The active ingredients contained in SK2TR450-2 help specifically sealing porous mould surfaces. The product has a thermal stability till 450°C, the application temperature range is between  $10^{\circ}\text{C} - 80^{\circ}\text{C}$ . It is a multi-purpose sealer for the purpose of processing polyester, thermoset resins as well as epoxy or phenolic resins on any kind of mould surface.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

Prior to the first application of SK2TR450-2, ensure to thoroughly clean the moulds from dirt and former release agent residues. For this specific purpose, we recommend using our product cleaner of category SK2TR. Proceed to clean the moulds with a fast-evaporating solvent to eliminate all residues of fat and wax. Use a cotton cloth to apply a thin layer of SK2TR450-2 to the mould surface. Immediately after the application of sealer, use a second cloth to polish the mould's surface with the formerly applied SK2TR450-2. We recommend applying a minimum of 2 layers. Each single layer needs approximately 5 minutes of curing time. After all layers of SK2TR450-2 have been applied, we recommend to apply our semi-permanent Release Agent SK2TR450-4 or SK2TR450-5 before starting production.

#### ► TECHNICAL DATA

Appearance: Colourless liquid

Composition: Mixture of resins in solvents

Density [g/cm3]: Approx. 0.76

Max. used T:  $450^{\circ}$ C Flash Point [°C]:  $>25^{\circ}$ C

Packaging
Box of 6 x 0,38 kg
Can of 3,8 kg
Can of 7,6 kg



SK2TR450-2

Mould sealer

#### **▶ STORAGE**

## TECHNICAL DATA SHEET

SK2TR450-3

Fast evaporating mould sealer

Back to content

#### **▶** DESCRIPTION

SK2TR450-3 is a very fast evaporating solvent-based easy-to-use high-tech mould sealer. This product has specifically been developed for new, porous or repaired moulds to seal the mould before using regularly semi-permanent release agents from category SK2TR. The active ingredients contained in SK2TR450-3 help specifically sealing porous mould surfaces. The product has a thermal stability till 450°C, the application temperature range is between  $10^{\circ}\text{C} - 80^{\circ}\text{C}$ . It is a multi-purpose sealer for the purpose of processing polyester, thermoset resins as well as epoxy or phenolic resins on any kind of mould surface.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

Prior to the first application of SK2TR450-3, ensure to thoroughly clean the moulds from dirt and former release agent residues. For this specific purpose, we recommend using our product cleaner of category SK2TR. Proceed to clean the moulds with a fast-evaporating solvent to eliminate all residues of fat and wax. Use a cotton cloth to apply a thin layer of SK2TR450-3 to the mould surface. Immediately after the application of sealer, use a second cloth to polish the mould's surface with the formerly applied SK2TR450-3. We recommend applying a minimum of 2 layers. Each single layer needs approximately 5 minutes of curing time. After all layers of SK2TR450-3 have been applied, we recommend to apply our semi-permanent Release Agent SK2TR450-4 or SK2TR450-5 before starting production.

#### ► TECHNICAL DATA

Appearance: Yellowish liquid

Composition: Mixture of resins in solvents

Density [g/cm3]: Approx. 0.78

Max. used T: 450°C Flash Point [°C]: 0°C

Packaging
Box of 6 x 0,39 kg
Can of 3,9 kg
Can of 7,8 kg



SK2TR450-3

Fast evaporating mould sealer

#### **▶ STORAGE**



SK2TR450-4

Semi-permanent mould release agent

Back to content

#### DESCRIPTION

SK2TR450-4 is an easy-to-use semi-permanent mould release agent that dispenses with the need for application of any waxes. Since release agent SK2TR450-4 shows excellent adhesion to the mould's surface, there is no transfer of release agent to the moulded parts, rendering post processing possible without further treatments. It creates high gloss finished surfaces and minimizes release agent residues in the mould. The product exhibits a thermal stability up to 450 °C, the application temperature range is between 10–80 °C allowing for touch-ups on hot moulds. Release agent SK2TR450-4 is a multi-purpose product commonly used in the processing of thermoset resins, polyester, epoxy and phenolic resins.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

#### Cleaning process:

We recommend to thoroughly clean mould surfaces prior to the application of release agent SK2TR450-4. Our cleaner SK2TR000-2 will be sufficient. In order to ensure all residues of fat and wax are removed completely, additional cleaning using a fast-evaporating solvent is advisable.

#### Sealing process:

New moulds, recently repaired moulds or moulds with a porous surface need to be treated with an appropriate sealer prior to their initial use. We recommend using our sealer SK2TR450-2 or SK2TR450-3, which has been specifically adjusted to incorporate our semi-permanent release agents of category SK2TR.

#### **Base Coating:**

Release agent SK2TR450-4 can be sprayed, but application is commonly done by using a soaked, yet not dripping wet clean lint-free cotton cloth. Start by applying the release agent to a small manageable surface. After approx. 10–15 s, use a second, clean and dry cloth to absorb the release agent excess and proceed by wiping in circular motion until a clear and dry film emerges. We suggest beginning to wipe along the outer border, approaching the inside. Repeat this procedure with the adjacent areas until all parts of the mould are evenly coated. In order to obtain a smooth and homogenous base coat, a minimum of 2 layers of release agent SK2TR450-4 should be applied. Make sure, that the solvent is evaporated completely between each layer. After the final layer has been applied, allow the release agent to cure for about 40–60 min. Curing time can be reduced by heating the mould (approx. 50 °C, 20-30 min.).

### TECHNICAL DATA SHEET

SK2TR450-4

Semi-permanent mould release agent

#### Mould touch-up:

The first touch-up should be performed after 5-6 demouldings in order to prepare the mould for a high number of demoulding cycles. Since the release film wears during production touch-up coatings should be applied frequently. Release agent SK2TR450-4 has been designed to incorporate and chemically bond touch-up layers of itself. Hence, curing time after touch-up reduces to approx. 10 min at room temperature. The appropriate frequency of touch-ups for sufficient release depends on mould configuration and abrasion parameters and has to be determined in individual on-site trials. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency. This procedure will significantly reduce mould fouling due to build-ups and lead to extended mould service lives while ensuring a constant high quality of the moulded parts. Release agent SK2TR450-4 can also be touched-up partially, refreshing the release agent film only on those mould areas experiencing higher wear. However, we recommend touch-up of the complete mould.

#### Partial release film repairs:

In the case of a partial, drastic decrease in release performance, the release coating should be partially repaired. Prior to doing so, the worn release film has to be removed completely 10 cm around the affected area with the help of soft abrasion, accompanied by wiping with solvent. Make sure that the mould's surface is thoroughly cleaned prior to application of a fresh base coat in the respective area in order to guarantee sufficient adhesion of the compensating layer to the mould.

Grounding is done as described above (Base coat). Even release of the moulded parts will be maintained if the repaired area is touched-up after each release for the first 4-6 demoulding cycles after the repair.

#### **▶ TECHNICAL DATA**

Appearance: Colourless liquid

Composition: Resin mixture in solvents

Density [g/cm3]: Approx. 0.8

Max. used T: 450°C

Flashpoint: >25°C

Packaging
Box 6 x 0,39 kg
Can of 3,9 kg



SK2TR450-4

Semi-permanent mould release agent

Can of 7,8 kg

#### **▶ STORAGE**



SK2TR450-5

Semi-permanent mould release agent

Back to content

#### **▶** DESCRIPTION

SK2TR450-5 is an easy to use semi-permanent mould release agent for the processing of thermoset resins that provides excellent lubrication, rendering the product the release agent of choice when highly complex moulds with various undercuts are being used. Post processing, such as gluing or vanishing can be done without further treatments to the casting, since there is no transfer of SK2TR450-5 to the moulded parts. The product creates high gloss finished surfaces and minimizes build-up in the mould. It has a thermal stability till 450°C, the application temperature range is between 10°C - 80°C, allowing touch up coatings on hot moulds. Designated application fields include the processing thermoset resins, polyester, epoxy as well as phenolic resins. Especially highly complex mould geometries can reliably be casted.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

#### Cleaning process:

Mould surfaces should be thoroughly cleaned prior to the application of release agent SK2TR450-5. We recommend using our cleaner SK2TR000-2 to do so. Additional cleaning using a fast-evaporating solvent is also recommended to ensure all residues of fat and wax are eliminated.

#### Sealing process:

New moulds, recently repaired moulds or moulds with a porous surface need to be treated with an appropriate sealer prior to their initial use. Our sealers SK2TR450-2 or SK2TR450-3 will be appropriate as these has been specifically adjusted to incorporate with our semi-permanent release agents of category SK2TR.

#### **Base Coating:**

Release SK2TR450-5 is usually applied with the help of a soaked, yet not dripping wet clean lint-free cotton cloth. However, the product can be sprayed. Commence by applying the release agent to a small surface area of about 1 m². After approx. 10 – 15 seconds, when the film is still moist, use a second, clean and dry cloth to absorb the release agent excess and proceed by wiping in circular motion until a clear and dry film emerges. We recommend to wipe along the outer border of the mould first, approaching the inside. Repeat this procedure with the adjacent areas until all parts of the mould are treated. A minimum of 2 layers of release agent SK2TR450-5 should be applied to obtain a smooth and homogenous base coat. Ensure that the solvent evaporates completely between each application. After application of the final layer, release agent should be allowed to cure for about 40 – 60 minutes. Curing time can be reduced by



SK2TR450-5

#### Semi-permanent mould release agent

increasing of mould's temperature (approx. 50°C, 20-30 min.).

#### Mould touch-up:

Good conditioning of the mould will be achieved if the release agent film is refreshed 5-6 demoulding cycles after the initial base coating process. The release film wears during production. Hence, touch-up coatings should be applied frequently, considering a curing time of approx. 10 min at room temperature after each touch-up. The appropriate frequency of touchups required for sufficient release depends on individual production conditions and has to be determined in on-site trials. Please contact our technical service for assistance. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency as this will significantly reduce mould fouling and lead to extended mould service lives. Simultaneously, a constant high quality of the moulded parts can be achieved. Release agent SK2TR450-5 can also be touched-up partially, refreshing the release agent film only on those mould areas experiencing higher wear. Touch-up of the complete mould is preferred, though.

#### Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the coating. In order to do so, the worn release film has to be removed completely 10 cm around the affected area with the help of soft abrasion, accompanied by wiping with solvent. Make sure that the mould's surface is thoroughly cleaned prior to application of a fresh base coat in the respective area in order to guarantee sufficient adhesion of the compensating layer to the mould. Grounding is done as described above (Base coat). Even release of the moulded parts will be maintained if the repaired area is touched-up after each release for the first 4-6 demoulding cycles after the repair

#### ► TECHNICAL DATA

Appearance: Colourless liquid

Composition: Mixture of resins in solvents

Density [g/cm3]: Approx. 0.8

Max. used T: 450°C Flashpoint: >25°C

Packaging
Box 6 x 0,39 kg
Can of 3,9 kg
Can of 7,8 kg



SK2TR450-5

Semi-permanent mould release agent

#### **▶ STORAGE**

## TECHNICAL DATA SHEET

SK2TR450-6

Semi-permanent mould release agent

Back to content

#### DESCRIPTION

SK2TR450-6 is a fast evaporating semi-permanent mould release agent for the processing of thermoset resins. By using release agent SK2TR450-6, sealing the mould is no longer necessary. The product shows excellent adhesion to the mould's surface, thereby allowing for post-processing of moulded parts without the need for any further treatments. Moulded parts exhibit a high gloss surface finish. Release agent SK2TR450-6 is temperature-stable up to 450 °C. Application is usually done at 10-80 °C. It is a multi-purpose product used in the processing of thermoset resins, polyester, epoxy and phenolic resins. As release agent SK2TR450-6 dispenses without the need for any mould sealing, the product allows for significant time savings in mould preparation.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

#### Cleaning process:

Mould surfaces should be thoroughly cleaned prior to the application of release agent SK2TR450-6. We recommend using our cleaner SK2TR000-2 to do so. Additional cleaning using a fast-evaporating solvent is also recommended to ensure all residues of fat and wax are eliminated.

#### Base Coating:

Release agent SK2TR450-6 can directly be applied to the mould, application of any mould sealer is not required. Use a soaked, yet not dripping wet clean lint-free cotton cloth to apply release agent SK2TR450-6 to a small surface area of about 1 m². After approx. 10–15 s, when the film is still moist, use a second, clean and dry cloth to absorb excess of release agent SK2TR450-6 and proceed by wiping in circular motion until a clear and dry film emerges. Beginning to wipe along the outer border of the mould approaching the inside is recommended. This procedure is repeated with the adjacent areas until all parts of the mould have been treated. We recommend application of a minimum of 2 layers of release agent SK2TR450-6 to ensure smooth and homogenous grounding. Make sure that the solvent is evaporated completely between each application. After application of the final layer, release agent SK2TR450-6 should be allowed to cure for about 30–60 min. Curing time can be reduced by increasing the mould's temperature (approx. 50 °C, 15-30 min.).

Mould touch-up:



SK2TR450-6

#### Semi-permanent mould release agent

Good conditioning of the mould will be achieved if the release agent film is refreshed 5-6 demoulding cycles after the initial base coating process. The release film wears during production. Hence, touch-up coatings should be applied frequently, considering a curing time of approx. 10 min at room temperature after each touch-up. The appropriate frequency of touchups required for sufficient release depends on individual production conditions and has to be determined in on-site trials. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency as this will significantly reduce mould fouling and lead to extended mould service lives while maintaining a constant high quality of the moulded parts.

Release agent SK2TR450-6 can also be touched-up partially, refreshing the release agent film only on those mould areas experiencing higher wear. Touch-up of the complete mould is preferred, though.

#### Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the releasing film. Prior to doing so, the worn release film has to be removed completely 10 cm around the affected area with the help of soft abrasion, accompanied by wiping with solvent. Ensure that the mould's surface is thoroughly cleaned prior to application of a fresh base coat in the respective area in order to guarantee sufficient adhesion of the compensating layer to the mould. Grounding is done as described above (Base coat). The repaired area should be touched-up after each release for the first 4-6 demoulding cycles after the repair in order to maintain best overall release performance.

#### **▶ TECHNICAL DATA**

Appearance: Colourless liquid

Composition: Resin mixture in solvent

Density [g/cm3]: Approx. 0.8 Max. used T: 450°C Flashpoint: 0°C

Packaging
Box 6 x 0,4 kg
Can of 4 kg
Can of 8 kg



SK2TR450-6

Semi-permanent mould release agent

#### **▶ STORAGE**

## TECHNICAL DATA SHEET

SK2TR450-7

Semi-permanent mould release agent

Back to content

#### **▶ DESCRIPTION**

SK2TR450-7 is a fast-evaporating semi-permanent mould release agent providing superior lubrication in the processing of thermoset resins. The product dispenses with the need for any mould sealing, thereby allowing for significant time savings. Since release agent SK2TR450-7 adheres strongly to the mould's surface, there is no transfer of release agent to the moulded parts which therefore can be post-processed without any further treatments. The product provides high gloss finished surfaces. When SK2TR450-7 is used, build-up in the mold is kept to a minimum. Thermal stability of this product reaches 450°C, however the application temperature range is between 10°C - 80°C. SK2TR450-7 is a multi-purpose product used in the processing thermoset resins, polyester, epoxy as well as phenolic resins. Thanks to its excellent lubrication properties, release agent SK2TR450-7 is the product of choice when highly complex moulds with various undercuts are being used.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

#### Cleaning process:

We recommend to thoroughly clean mould surfaces prior to the application of release agent SK2TR450-7. Using our cleaner SK2TR000-2 will be sufficient. Additional cleaning using a fast-evaporating solvent is advisable to ensure all residues of fat and wax are eliminated

#### Base Coating:

Application of release agent SK2TR450-7 can be done without prior sealing of mould. Usually, a soaked, yet not dripping wet clean lint-free cotton cloth is used to apply the release agent. We recommend starting to treat a small manageable surface area first. After approx. 10 – 15 seconds, when the film is still moist, release agent excess is absorbed with the second clean cloth following by wiping in circular motion until a clear and dry film emerges. We suggest beginning to wipe along the outer border, approaching the inside. Repeat this procedure with the adjacent areas until all parts of the mould are evenly coated. Application of a minimum of 2 layers of release agent SK2TR450-7 is recommended in order to guarantee smooth and homogenous grounding. Make sure that the solvent evaporates completely between each layer. After the final layer has been applied, allow the release agent to cure for about 30 – 60 minutes. Curing time can be reduced by increasing the temperature of the mould (approx. 50°C, 15-30 min.).

Mould touch-up:

## TECHNICAL DATA SHEET

SK2TR450-7

#### Semi-permanent mould release agent

The first touch-up should be performed after about 5 - 6 releases, in order prepare the mould for a high number of release cycles. Since the release film wears out by use, refreshment coatings should be applied frequently. Release agent SK2TR450-7 has been designed to incorporate and chemically bond touch-up layers of itself. Hence, curing time after touch-up reduces to approx. 10 min at room temperature. The appropriate frequency of touch-ups for a constant high release performance depends on individual production conditions and has to be determined in on-site trials. We highly recommend applying touch-up prior to an observed decrease in release efficiency. This procedure will significantly reduce mould fouling due to build-ups and lead to extended mould service lives while ensuring a constant high quality of the moulded parts. Release agent SK2TR450-7 can also be touched-up partially, refreshing the release agent film only on those mould areas experiencing higher wear. Touch-up of the complete mould is preferred, though.

#### Partial release film repairs:

In the case of a partial, drastic decrease in release performance, the release coating should be partially repaired. Prior to doing so, the worn release film has to be removed completely 10 cm around the affected area with the help of soft abrasion, accompanied by wiping with solvent. Ensure that the mould's surface is thoroughly cleaned prior to application of a fresh base coat in the respective area in order to guarantee sufficient adhesion of the compensating layer to the mould. Grounding is done as described above (Base coat). The repaired area should be touched-up after each release for the first 4-6 demoulding cycles after the repair in order to maintain best overall release performance.

#### ► TECHNICAL DATA

Appearance: Colourless liquid

Composition: Mixture of resins in solvents

Density [g/cm3]: Approx. 0.8 Max. used T: 450°C

Flashpoint: 0°C

Packaging
Box 6 x 0,40 kg
Can of 4 kg
Can of 8 kg



SK2TR450-7

Semi-permanent mould release agent

#### **▶ STORAGE**

## TECHNICAL DATA SHEET

SK2TR450-12

Semi-permanent mould release agent

Back to content

#### **▶ DESCRIPTION**

Release agent SK2TR450-12 is a very fast-evaporating semi-permanent mould release agent used in the processing of thermoset resins. It is easy to handle and adheres excellent to the mould's surface (no transfer to the moulded parts), thereby rendering downstream processing, such as gluing or vanishing, possible without further treatments to the casting. Release agent SK2TR450-12 creates high gloss finished surfaces and minimizes release agent residues in the mould. The product designated application fields include the processing of thermoset resins, polyester, epoxy as well as phenolic resins.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

#### Cleaning process:

Prior to the first application of release agent SK2TR450-12, ensure to thoroughly clean the moulds from dirt and former release agent residues. We recommend using cleaner of category SK2TR. Proceed to clean the moulds at room temperature with a fast-evaporating solvent to eliminate all residues of grease and wax.

#### Base Coating:

Apply Release Agent SK2TR450-12 by using a soaked, yet not dripping wet clean lint-free cotton cloth. Start by applying the release agent to a small surface area of approx. 1  $m^2$ , letting the film dry completely (wipe on, leave on). We suggest beginning to wipe along the outer border, approaching the inside. Repeat this procedure with the adjacent areas until all parts of the mould are evenly coated. To complete the whole coating process, follow these guidelines and apply 3 - 4 layers of release agent SK2TR450-12 to the mould. Allow each layer to cure for about 10 minutes. After the last layer has been applied, allow the release agent to cure for about 40-60 minutes.

#### Mould touch-up:

The first release film refreshment should be performed after about 5 - 6 releases, in order to prepare the mould for a high number of release cycles. Since the release film wears during running production, touch-up coatings should be applied frequently. Release Agent SK2TR450-12 has been designed to incorporate and chemically bond touch-up layers of itself. Hence, curing time after touch-up reduces to approx. 10 min at room temperature. The appropriate frequency of touch-ups required for constant high release performance depends on individual production conditions and has to be determined in on-site trials. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency as this will significantly reduce mould fouling and maintain a constant high quality of the moulded parts.



SK2TR450-12

#### Semi-permanent mould release agent

Although Release Agent SK2TR450-12 can be touched-up partially, we recommend touchup of the complete mould.

#### Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the releasing film. Prior to repairing the release film of a particular area of the mould, the worn release film needs to be removed completely 10 cm around the affected area. Semi-permanent release agents require soft abrasion as well as a wiping with solvent. Poor cleanings drastically impair the release film adhesion on the affected areas. Treat these cleaned areas as if they were a new mould (see Base coat). Continue by refreshing the film after each release for the first 4-6 demoulding cycles after the repair. Keep in mind, that the repaired areas are more damageable than others.

#### ► TECHNICAL DATA

Appearance: Colourless liquid

Composition: Resin mixture in solvents

Density [g/cm3]: Approx. 0.7

Flashpoint: 0°C

#### **► SIZE**

Packaging
Box 6 x 0,35 kg
Can of 3,5 kg
Can of 7 kg

#### **▶ STORAGE**



SK2TR450-13

Semi-permanent mould release agent

Back to content

#### **▶ DESCRIPTION**

SK2TR450-13 is an ultra-fast evaporating, multi-purpose semi-permanent mould release agent that is used to release most thermosetting resins such as polyester, vinyl ester, epoxy and phenolic resins from all kind of mould materials. It has specifically been designed for application on non-gelcoated surfaces. The product features excellent slip and release properties and is especially easy and fast to apply (wipe on, leave on). After cure, the release film is temperature stable up to 450°C and very durable, thereby allowing for multiple releases per application. The moulded parts are not contaminated and hence can be varnished or glued directly after the demoulding without further treatments.

The product is also ideally suited for many other moulding processes where a room/low temperature below 60°C application is possible, such as rotational moulding. Note that the product is not suited to release isocyanate containing resins and silicone elastomers. This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

Please make sure that Release agent SK2TR450-13 is only handled in well-ventilated areas.

#### Cleaning process:

Ensure that the mould has been thoroughly cleaned from residues of wax and silicone with the help of a solvent-based cleaner. We recommend using our cleaner of category SK2TR. Release agent SK2TR450-13 has been adjusted in formulation to allow application over existing semi-permanent release agents without a further cleaning step. However, ensure that the mould is clean and dry.

#### Base Coating:

When Release agent SK2TR450-13 is used in production, there is no need for an additional mould sealer, even when using porous mould surfaces. Application is done with the help of a soaked, yet not dripping clean lint-free cloth. Wipe the wet cloth over a mould surface covering an area of approx.  $0.5 \, \text{m}^2$  - do not rub or polish afterwards. Continue by treating the adjacent mould areas in the same manner, frequently re-applying the product to the cloth. Special care should be taken to the overlap areas. Repeat this procedure until all parts of the mould are evenly coated. We suggest wiping along the outer border first, approaching the inside. When dry, allow a further 10-15 min before applying the consecutive release film layer. In total, 2-3 layers of Release agent SK2TR450-13 should be applied to the mould surface. In case of new, porous or freshly repaired moulds apply an extra 1-2 coating layers as described above. After the final layer has been applied, allow the film to cure for at least 30 min at room temperature. Note that longer curing times or curing at elevated temperatures (e. g. 5 min at 60°C) will result in an improved release

## **TECHNICAL DATA SHEET**

SK2TR450-13

Semi-permanent mould release agent

film durability.

#### Mould touch-up:

During running production, the release film wears and hence has to be refreshed frequently. We highly recommend to perform the touch-up prior to a drastic decrease in release performance to guarantee a constant high product quality and keep mould build-up low. The appropriate frequency for touch-ups depends on the individual production conditons and has to be determined in on-site trials. For touch-up, applying one single layer of Release agent SK2TR450-13 considering the curing time will be sufficient. Release agent SK2TR450-13 has been designed to chemically bond and integrate consecutively applied layers of itself, thereby allowing for partial touch-ups. However, we recommend refreshing the complete release film.

#### Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the release film. In this case, remove the worn release film completely 10 cm around the affected area with the help of soft abrasion and wiping with solvent. Note that poor cleanings drastically impair the release film adhesion on the affected areas. Treat the cleaned areas as if they were new (cf. Base coat). Continue by refreshing the film after each demoulding for the first 4-6 releases after the repair. Keep in mind, that the repaired areas are more damageable than others.

#### ► TECHNICAL DATA

Appearance: Colourless liquid

Composition: Resin mixture in solvents

Density [g/cm3]: Approx. 0.74

Flashpoint: 0°C

#### **► SIZE**

Packaging
Box 5 x 0,74 kg
Can of 3,7 kg
Can of 7,4 kg

#### **▶ STORAGE**

## TECHNICAL DATA SHEET

SK2TR450-14

Semipermanent release agent

Back to content

#### **▶** DESCRIPTION

SK2TR450-14 is a sprayable solvent-based semi-permanent mould release agent used in the processing of thermoset resins such as polyester, vinyl ester, epoxy and phenolic resins, from non-porous or gel-coated moulds. The product combines straightforward handling with excellent release performance and allows for multiple releases per application. Since the release coating does not transfer to the moulded parts, downstream processes, such as varnishing, are not impaired. Being versatile with regard to the type of mould surface used, Release agent SK2TR450-14 minimizes mould build-up and provides an instant high gloss finish. The ability to spray apply remarkably fastens the release agent application as compared to traditional wax-based pastes. After curing, the release film is temperature stable up to 450°C. The product is ideally suited for non-skid or textured large open moulds.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

As with all processes involving solvents, Release agent SK2TR450-14 should only be handled in a well-ventilated area.

#### Cleaning process:

Make sure to remove all residues of dirt and former release agents, especially wax- and silicone-based release agents, from the mould surface prior to applying Release Agent SK2TR450-14. Application on top of other semi-permanent release agents is possible, but not recommended. For cleaning we recommend using our Cleaners SK2TR000-1 and SK2TR000-2.

#### Base Coating:

Release Agent SK2TR450-14 is usually applied by means of spraying. Although using any spray gun capable of fine atomization will be sufficient, we highly recommend applying a high volume low pressure spray gun since according to experience this will result in best release performance and product quality. Set the pressure to approx. 2-2,5 bar and hold the nozzle (preferred < 1,5 mm) of the gun approx. 20-25 cm from the mould surface. The output should be adjusted to allow for film drying in about 2-3 s after spraying. Systematically coat the entire surface of the mould. Special care should be taken to the over-lap spray areas. Immediately after applying the first layer, apply a second coat rectangular to the first. To complete the whole coating process, follow these guidelines and apply 2-3 coating layers of Release Agent SK2TR450-14 to the mould. After application of the final layer, allow the release agent to cure for at least 30 min at room temperature. In case of using new, repaired or porous moulds, apply a further 2 coats to ensure best release performance. In order to avoid hazing and poor durability of the release film, we

## TECHNICAL DATA SHEET

SK2TR450-14

#### Semipermanent release agent

recommend to test the gun settings as well as the spray technique on the mould edge first and to immediately remove over application or drippings by means of wiping or rubbing with a clean dry cloth. Then, reapply Release Agent SK2TR450-14in the same manner as described above.

#### Mould touch-up:

Since the release film wears during running production, touch-up coatings should be applied frequently. The appropriate frequency of touch-ups required for constant high release performance depends on individual production conditions and has to be determined in on-site trials. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency as this will help maintaining a constant high quality of the moulded parts. We recommend touch-up of the complete mould.

#### Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the release film. In this case, remove the worn release film completely 10 cm around the affected area with the help of soft abrasion and wiping with solvent. Note that poor cleanings drastically impair the release film adhesion on the affected areas. Treat the cleaned areas as if they were new (cf. Base coat). Continue by refreshing the film after each demoulding for the first 4-6 releases after the repair. Keep in mind, that the repaired areas are more damageable than others.

#### ▶ TECHNICAL DATA

Appearance: Colourless liquid

Composition: Resin mixture in solvents

Density [g/cm3]: Approx. 0.72

Flashpoint: 0°C

#### **► SIZE**

Packaging
Box 5 x 0,72 kg
Can of 3,6 kg
Can of 7,2 kg

#### **▶ STORAGE**



SK2TR450-8

Semi-permanent release agent

Back to content

#### DESCRIPTION

SK2TR450-8 is a water-based semi-permanent release agent enabling a straightforward processing of thermoset resins. Due to its well-balanced composition, release agent SK2TR450-8 provides superior release properties and excellent adhesion to the mould's surface. Downstream processing, such as gluing or varnishing, is possible without the need for any further treatments since SK2TR450-8 does not transfer to the moulded parts. The product provides a high gloss surface finish.

SK2TR450-8 is universally applicable on porous surfaces and releases all commonly used thermoset resins, such as polyester, epoxy and phenolic resins and PUR gelcoats. Especially if processing standards demand a high slip, SK2TR450-8 will be the perfect match. The product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

#### Cleaning:

It is recommended to thoroughly clean and dry mould surfaces prior to the application of release agent SK2TR450-8. Our cleaner SK2TR000-2 will be sufficient. However, release agent SK2TR450-8 is also suitable for touch-up coatings.

#### Base coat:

Green or freshly repaired moulds can directly be coated with release agent SK2TR450-8. Any initial mould sealing is not required.

Apply release agent SK2TR450-8 by wiping with a soaked, but not dripping, clean lint-free cloth. Commence by applying the release agent to a small surface area of approx. 1 m². After about 30-60 s, when the film is still moist, use a second dry cloth to absorb excess of release agent SK2TR450-8 and proceed by wiping in circular motion until a clear and dry film emerges. In the case of occurring streaks or smears reduce the time before wiping off excess of release agent. We recommend beginning to wipe along the mould's outer border, approaching the inside. This procedure is repeated with the adjacent areas until all parts of the mould are evenly coated. In order to obtain a smooth and homogenous base coat, 2-3 layers of release agent SK2TR450-8 have to be applied. Allow each layer to cure for about 10 min. After the final layer has been applied, release agent SK2TR450-8 should be allowed to cure for about 15-30 min at 60 °C.

Mould touch-up:

Good conditioning of the mould will be achieved if the release agent film is refreshed 2-4 demoulding cycles after the initial base coating process. Since the release film wears during production touch-up coatings should be applied frequently.

Release agent SK2TR450-8 has been designed to incorporate and chemically bond touch-up layers of itself. Hence, curing time after touch-up reduces to approx. 15 min at room temperature. The required frequency of touch-ups for sufficient release depends on mould configuration and abrasion parameters and must be determined in individual on-site trials. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency. This will significantly reduce mould fouling due to build-ups and lead to extended mould service lives while ensuring a constant high quality of the moulded parts.

### S T E V I K

## TECHNICAL DATA SHEET

#### SK2TR450-8

#### Semi-permanent release agent

Release agent SK2TR450-8 can also be touched-up partially, refreshing the release agent film only on those mould areas experiencing higher wear. Touch-up of the complete mould is preferred, though.

Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the coating. In order to do so, the worn release film has to be removed completely 10 cm around the affected area with the help of soft abrasion, accompanied by wiping with solvent. Make sure that the mould's surface is thoroughly cleaned prior to application of a fresh base coat in the respective area in order to guarantee sufficient adhesion of the compensating layer to the mould.

Grounding is done as described above (Base coat). Even release of the moulded parts will be maintained if the repaired area is touched-up after each release for the first 4-6 demoulding cycles after the repair.

#### **► TECHNICAL DATA**

Appearance: Cream-colored liquid

Composition: Aqueous emulsion of synthetic resins

Density [g/cm3]: Approx. 1 pH-value (20°C): Approx. 4

#### **► SIZE**

Packaging
Can of 5 kg

#### STORAGE

## TECHNICAL DATA SHEET

SK2TR450-9

Semi-permanent release agent

Back to content

#### DESCRIPTION

Release agent SK2TR450-9 was specially developed for the aerospace sector. It is an easy-to-use, semi-permanent, water-based mould release agent which works without sealing the mould. The product forms a complete film on the mould. Though this film is micro-thin, it is very resistant after a short curing time and temperature stable up to 450°C. It has a strong chemical bonding to almost all mould materials and a single application allows multiple releases. To meet the requirements of the aerospace sector, release agent SK2TR450-9 does not transfer to the moulded parts, allowing further processing steps such as varnishing, gluing etc. without prior treatment. It's an air-drying system, heat curing is not necessary. Build-up on the moulds can be eliminated almost completely if the release agent is used as directed. SK2TR450-9 can be used as a release agent for hot presses with thermosets such as polyester, epoxy, phenolic, melamin resins, PU-gelcoats as well as for RTM procedures.

The product is used in various manufacturing processes of parts made of composite materials.

#### **▶** APPLICATION

Prior to the first application of release agent SK2TR450-9 the moulds have to be cleaned thoroughly. Afterwards we recommend to clean the moulds with a fast evaporating solvent to eliminate all residues of grease and wax. Apply 1 - 2 thin and even layers of release agent SK2TR450-9 as a priming coating. Application can be done by hand, with cotton cloths, with a brush, a sponge or, which would be the best, by spraying. Longer drying times and higher temperatures will enforce the release film's stability and will increase the number of possible releases. After this pretreatment, the processing can be started. One single application of SK2TR450-9 is sufficient to refresh the release film considering the drying time.

#### **► TECHNICAL DATA**

Appearance: White liquid

Composition: Aqueous emulsion of synthetic resins

Density [g/cm3]: Approx. 1 pH-value (20°C): Approx. 3

Packaging
Can of 5 kg
Can of 30 kg
Drum of 200 kg



SK2TR450-9

Semi-permanent release agent

#### **▶ STORAGE**

## S T E V I

## TECHNICAL DATA SHEET

SK2TR450-10

Release agent

Back to content

#### DESCRIPTION

SK2TR450-10 is an external mould release agent on a basis of fluorocarbon polymers dispersed in water. Under optimum preconditions the product does not need additional mould sealers. The product forms a thin, yet highly stable release film to withstand operating temperatures of up to 450°C after the curing cycle. One single application of release agent SK2TR450-10 allows multiple mould release cycles. It possesses a strong chemical bond to almost any mould material, allowing a high number of possible releases per application. SK2TR450-10 is an air-drying system, rendering heat curing-cycles unnecessary. It will not cause build-up of release agent residues on the mould surface, if applied properly.

SK2TR450-10 is suited for the purpose of processing thermoset materials, such as polyester, epoxy resins, phenolic resins and melamine resins and PU gel coats.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

Clean the moulds well prior to the initial use of release agent SK2TR450-10. We recommend an additional cleaning step with a suitable solvent to eliminate any persistent fatty, greasy or wax residue on the mould surface. Apply 1-2 thin, yet even layers of the product as a priming coat. Higher temperatures as well as the amount of time you allow the coating to dry will greatly enhance the number of possible release cycles per application. The manufacturing process can be started after this initial mould treatment. One single application of SK2TR450-10 is sufficient to recondition the release film, abiding by individual curing time parameters.

#### ► TECHNICAL DATA

Appearance: Beige liquid

Composition: Dispersion of polymers in water

Density [g/cm3]: Approx. 1 pH-value (20°C): Approx. 9.5

Packaging	
Can of 5 kg	



SK2TR450-10

Release agent

#### **▶ STORAGE**

### TECHNICAL DATA SHEET

SK2TR450-11

Semi-permanent release agent

Back to content

#### DESCRIPTION

SK2TR450-11 is a semi-permanent, water-based mould release agent which dispenses without need for any mould sealing. Requiring only a very short curing time, release agent SK2TR450-11 forms a highly resistant film on the surface of the mould that is temperature-stable up to 450 °C. Due to its strong adhesion to almost all mould materials the product allows for multiple releases. SK2TR450-11 does not transfer to the moulded parts, allowing further processing steps such as varnishing, gluing etc. without prior treatment. It is an air-drying system; heat curing is not necessary. Build-up on the moulds can be eliminated almost completely if the release agent is used as directed.

SK2TR450-11 can be used as a release agent for hot-forming processes with thermosets such as polyester, epoxy, phenolic, melamin resins, PU-gelcoats as well as for RTM procedures.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

Prior to the first application of SK2TR450-11 moulds have to be cleaned thouroughly. Our cleaner SK2TR000-2 will be sufficient. Additional cleaning using a fast evaporating solvent is advisable in order to ensure elimination of all residues of grease and wax. Apply 1 - 2 thin and even layers of SK2TR450-11 as a priming coating. Application can be done by hand, with cotton cloths, with a brush, a sponge or, which would be the best, by spraying. Longer curing times and higher temperatures will enforce the release film's stability and will increase the number of possible releases. After this pretreatment, the processing can be started. One single application of release agent SK2TR450-11 is sufficient to refresh the release film considering the curing time.

#### ► TECHNICAL DATA

Appearance: white liquid

Composition: Aqueous emulsion of synthetic resins

Density [g/cm3]: Approx. 1 pH-value (20°C): Approx. 4

Packaging
Can of 5 kg



SK2TR450-11

Semi-permanent release agent

#### **▶ STORAGE**

## TECHNICAL DATA SHEET

SK2TR450-12

Semi-permanent mould release agent

Back to content

#### DESCRIPTION

Release agent SK2TR450-12 is a very fast-evaporating semi-permanent mould release agent used in the processing of thermoset resins. It is easy to handle and adheres excellent to the mould's surface (no transfer to the moulded parts), thereby rendering downstream processing, such as gluing or vanishing, possible without further treatments to the casting. Release agent SK2TR450-12 creates high gloss finished surfaces and minimizes release agent residues in the mould. The product designated application fields include the processing of thermoset resins, polyester, epoxy as well as phenolic resins.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

#### Cleaning process:

Prior to the first application of release agent SK2TR450-12, ensure to thoroughly clean the moulds from dirt and former release agent residues. We recommend using our Cleaner of category SK2TR. Proceed to clean the moulds at room temperature with a fast-evaporating solvent to eliminate all residues of grease and wax.

#### Base Coating:

Apply Release Agent SK2TR450-12 by using a soaked, yet not dripping wet clean lint-free cotton cloth. Start by applying the release agent to a small surface area of approx. 1  $m^2$ , letting the film dry completely (wipe on, leave on). We suggest beginning to wipe along the outer border, approaching the inside. Repeat this procedure with the adjacent areas until all parts of the mould are evenly coated. To complete the whole coating process, follow these guidelines and apply 3 - 4 layers of release agent SK2TR450-12 to the mould. Allow each layer to cure for about 10 minutes. After the last layer has been applied, allow the release agent to cure for about 40-60 minutes.

#### Mould touch-up:

The first release film refreshment should be performed after about 5 - 6 releases, in order to prepare the mould for a high number of release cycles. Since the release film wears during running production, touch-up coatings should be applied frequently. Release Agent SK2TR450-12 has been designed to incorporate and chemically bond touch-up layers of itself. Hence, curing time after touch-up reduces to approx. 10 min at room temperature. The appropriate frequency of touch-ups required for constant high release performance depends on individual production conditions and has to be determined in on-site trials. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency as this will significantly reduce mould fouling and maintain a constant high quality of the moulded parts.



SK2TR450-12

### Semi-permanent mould release agent

Although Release Agent SK2TR450-12 can be touched-up partially, we recommend touchup of the complete mould.

#### Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the releasing film. Prior to repairing the release film of a particular area of the mould, the worn release film needs to be removed completely 10 cm around the affected area. Semi-permanent release agents require soft abrasion as well as a wiping with solvent. Poor cleanings drastically impair the release film adhesion on the affected areas. Treat these cleaned areas as if they were a new mould (see Base coat). Continue by refreshing the film after each release for the first 4-6 demoulding cycles after the repair. Keep in mind, that the repaired areas are more damageable than others.

#### ► TECHNICAL DATA

Appearance: Colourless liquid

Composition: Resin mixture in solvents

Density [g/cm3]: Approx. 0.7

Flashpoint: 0°C

#### **► SIZE**

Packaging
Box 6 x 0,35 kg
Can of 3,5 kg
Can of 7 kg

#### **▶ STORAGE**

### TECHNICAL DATA SHEET

SK2TR150-1

**Release Paste** 

Back to content

#### DESCRIPTION

SK2TR150-1 is a paste which can be easily applied on the mould and polished to mirror finish. The product is specially developed for the sealing of mould surfaces for processing of composites. It can be used as release paste / sealer for the purpose of processing polyester resins, gelcoats and epoxy resins.

This product is used in various manufacturing processes of parts made of composite materials.

### APPLICATION

Clean the mould thoroughly from residues of dirt and other release agents prior to the application of SK2TR150-1. Proceed to clean the moulds with a fast-evaporating solvent to eliminate all residues of grease and wax. The next step is to apply a thin layer of release paste and allow it to dry. Afterwards it has to be polished with a rag. In practice 4-5 layers of SK2TR150-1 and polishing afterwards have proved of value. Please note that polishing is required after each single application.

### **► TECHNICAL DATA**

Appearance: Yellowish paste

Composition: Mixture of waxes in solvents

Density [g/cm3]: Approx. 0.8

Flash Point [°C]: 60°C

#### **► SIZE**

Packaging			
Can of 0,5 I (of 0,35 kg)			
6 x Can of 0,5 I (set of 2,1 kg)			

### **▶ STORAGE**

### TECHNICAL DATA SHEET

SK2TR150-2

Release Agent

Back to content

#### DESCRIPTION

Release agent SK2TR150-2 is a multi-purpose, liquid solvent-based wax for multiple demouldings for high gloss moulds with short drying time. The use of this product eliminates the need for repeated waxing and polishing, as a single application allows, after some starting time that demands frequent treatment of the mould, several releases. The product forms a monomolecular film that adheres to the mould and does not show any affinity to the moulded parts. This film is not peeled off and provides with its high release effect important improvements for the composite industry. It is silicone-free.

SK2TR150-2 can be used as a multi-purpose release agent for the purpose of processing thermoset resins, polyester (cold and hot forming), epoxy resins and phenolic resins. In particular, when the processing takes place at higher temperatures, excellent results are obtained. As the product forms a complete film, it can also be used as an anti-corrosive for steel moulds or as weather protection. At higher temperatures it can even be used as lubricant.

This product is used in various manufacturing processes of parts made of composite materials.

### APPLICATION

Prior to the first application of Release Agent SK2TR150-2, the moulds have to be cleaned thoroughly from residues of dirt and former release agent. We recommend to use our cleaner SK2TR000-2. The next step is to apply release agent SK2TR150-2 as an even, thin film and allow it to dry. The application can be done either by spraying, wiping or brushing. Before starting the production, ensure that the film is absolutely dry. Release agent should be stirred up or shaken prior to use.

### ► TECHNICAL DATA

Appearance: Whitish paste

Composition: Combination of waxes in solvents mixture

Density [g/cm3]: Approx. 0.78

Flash Point [°C]: <0°C

#### **►** SIZE

Packaging Packaging		
Can of 7,8 kg		
Drum of 156 kg		

### **TECHNICAL DATA SHEET**

SK2TR150-2

**Release Agent** 

### **▶ STORAGE**



SK2TR250-1

Release liquid/sealer

Back to content

#### DESCRIPTION

SK2TR250-1 is a waterbased release agent which can be easily applied on the mould and polished to mirror finish. The product is specially developed for the sealing of mould surfaces for processing of composites. It can be used as release agent / sealer for the purpose of processing polyester resins, gelcoats and epoxy resins.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

Clean the mould thoroughly from residues of dirt and other release agents prior to the application of SK2TR250-1. We recommend to use a suitable cleaner, for example SK2TR000-1. Proceed to clean the moulds with a fast-evaporating solvent to eliminate all residues of grease and wax. The next step is to apply a thin layer of release agent SK2TR250-1 and allow it to dry. Afterwards it has to be polished with a rag. In practice 2 – 3 layers of the product and polishing afterwards have proved of value. Please note that polishing is required after each single application.

### ► TECHNICAL DATA

Appearance: Blue liquid

Composition: Aqueous dispersion

Density [g/cm3]: Approx. 1 Ph-value (20°C): Approx. 4

### **► SIZE**

Packaging
Can of 5 kg

#### **▶ STORAGE**

### TECHNICAL DATA SHEET

SK2TR150-3

Release agent

Back to content

### **▶ DESCRIPTION**

Release agent SK2TR150-3 is a multi-purpose, liquid external mould release agent used in the processing of composites, especially polymer concrete. The product provides a fairly abrasion-resistant release film, rendering it especially suited for the procession of highly abrasive raw materials. Release agent SK2TR150-3 is a solvent-based formulation. Hence, drying time is low, allowing for an efficient production process. The product is completely free of silicone.

SK2TR150-3 is universally applicable in the processing of polymer concrete, polyester as well as epoxy resins. Since the product provides a coherent release film, it can further be used as an anti-corrosive for steel moulds or as weather protection. Additionally, it may be employed as lubricant at elevated temperatures.

This product is used in various manufacturing processes of parts made of composite materials.

### ► APPLICATION

Release Agent SK2TR150-3 should be thoroughly stirred directly before use. Prior to the first application, moulds have to be thoroughly cleaned from residues of dirt and former release agents. Our Cleaner SK2TR000-2 will be sufficient. Release agent SK2TR150-3 is applied as a thin and even film by means of spraying, brushing or wiping. Before starting production, ensure that the film is absolutely dry.

#### ▶ TECHNICAL DATA

Appearance: White liquid

Composition: Selected waxes in solvents mixture

Density [g/cm3]: Approx. 0.74

Flash Point [°C]: 0°C

#### **► SIZE**

Packaging			
Can of 22,2 kg			
Drum of 148 kg			

#### ▶ STORAGE



SK2TR000-4

### Additive reducing the surface tension of mould

Back to content

#### DESCRIPTION

Additive SK2TR000-4 has been developed and optimized to be used in combination with semi-permanent release agents from the category SK2TR. The combination results in an improved processability and improved surface quality of produced parts. Additive SK2TR000-4 is added to the uncured resin and reduces the surface tension. This not only improves flow and wetting properties of resins, but also helps to prevent pin holes and fish eyes from appearing. Moreover, employing The product increases the scratch resistance of the surface. Additive SK2TR000-4 is generally used in the processing of composites and employed as an additive in gelcoats.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

SK2TR000-4 can be added any time during the production process. The recommended dosage varies depending on the formulation and the raw materials in the range 0.5-2% relative to the total quantity of material. The appropriate concentration has to be determined individually in on-site trials. Please contact our technical service for assistance. It is generally advisable to start the tests with the lowest recommended level and to increase the dosage until the desired results are achieved.

### ► TECHNICAL DATA

Appearance: Yellow liquid

Composition: Solution of polymers and wetting agents

Density [g/cm3]: Approx. 0.92

Flash Point [°C]: 25°C

### ► SIZE

Packaging				
Box of 6 x 0.46 kg				
Can of 4.6 kg				
Can of 9.2 kg				

### **▶ STORAGE**

### TECHNICAL DATA SHEET

SK2TR250-2

Internal mould release agent

Back to content

#### DESCRIPTION

Additive SK2TR250-2 is a liquid internal release agent used in the processing of composites, especially epoxy resins. This product minimizes the need for external release agents significantly thanks to its high release effect. Any post-moulding operation can be directly performed. As a consequence, the use of SK2TR250-2 results in an excellent overall economy. The product will not have an influence on the chemical and physical properties of the resin and does not contain any silicones or waxes. SK2TR250-2 is used as internal release agent for epoxy resins, polyester resins, acrylic resins and SMC.

This product is used in various manufacturing processes of parts made of composite materials.

### APPLICATION

Additive SK2TR250-2 is added directly into the resin. To achieve best release performance, thorough and careful admixing of the product is crucial. The recommended dosage varies depending on the formulation and the raw materials between 0.5 % and 1 % relative to the amount of resin. The adequate concentration has to be identified by individual on-site trials. Please contact our technical service for assistance. It is advisable to start the tests with the lowest recommended level and to increase the dosage until the desired results are achieved. Prior to the first application of SK2TR250-2, the moulds have to be cleaned from residues of dirt and release agents. Afterwards it is recommended to apply a mould sealer and to support the initial release by the single use of an external release agent. For these purposes we recommend the use of cleaner and sealers from category SK2TR.

### **▶ TECHNICAL DATA**

Appearance: Yellow liquid

Composition: Formulation of fatty acid derivatives

Density [g/cm3]: Approx. 0.92

Flashpoint [°C]: 115

#### ► SIZE

Packaging			
Can of 27.6 kg			
Drum of 184 kg			



SK2TR250-2

Internal mould release agent

### **▶ STORAGE**



SK2TR250-3

Internal mould release agent

Back to content

### **▶** DESCRIPTION

Additive SK2TR250-3 is a liquid internal release agent used in the processing of composites. Ideally, the use of external release agents can be reduced significantly. Any post-moulding operation can be performed without further steps. As a consequence, the use of SK2TR250-3 results in an excellent overall economy. The product will not have an influence on the chemical and physical properties of the resin and does not contain any silicones or waxes. SK2TR250-3 is used as internal release agent for polyester resins.

This product is used in various manufacturing processes of parts made of composite materials.

#### APPLICATION

Additive SK2TR250-3 is added directly into the resin. To achieve best release performance, thorough and careful admixing of the product is crucial. The recommended dosage varies depending on the formulation and the raw materials between 0.5 % and 1 % relative to the amount of resin. The adequate concentration has to be identified by individual on-site trials. Please contact our technical service for assistance. It is advisable to start the tests with the lowest recommended level and to increase the dosage until the desired results are achieved. Prior to the first application of SK2TR250-3, the moulds have to be cleaned from residues of dirt and release agents. Afterwards it is recommended to apply a mould sealer and to support the initial release by the single use of an external release agent. For these purposes we recommend the use of cleaner and sealers from category SK2TR.

### **► TECHNICAL DATA**

Appearance: Colourless liquid

Composition: Mixture of active substances and high molecular

hydracarbons

Density [g/cm3]: Approx. 0.85

Flashpoint [°C]: 200 °C

#### ► SIZE

Packaging
Can of 25 kg
Drum of 160 kg



SK2TR250-3

Internal mould release agent

### **► STORAGE**



## **VACUUM HOSES AND VALVE**

### **RANGE**

Back to content

Name	Description	Max. use T°C
SK2VV000-2	Vacuum gauge	-
SK2VV000-4	Manometer for measurement of gases under pressure	200°C
SK2VV000-5	Vacuum test unit	-
SK2VV000-6	Vacuum leak indicator	-
SK2VV232-1	Standard vacuum hose	232°C
SK2VV232-2	Standard vacuum hose assemblies	232°C
SK2VV232-3	QRC socket connector	232°C
SK2VV232-4	QRC plug	232°C
SK2VV232-5	Multi cartridge tree 3x1	232°C
SK2VV232-6	QRC blanking cap	232°C
SK2VV232-7	Vacuum bag valve	232°C
SK2VV232-8	Sockets with integral hosetail	232°C
SK2VV232-9	Seals kit	232°C
SK2VV232-91	Seals kit for socket SK2VV232-3	232°C
SK2VV232-92	Seals kit for blank cap SK2VV232-6	232°C
SK2VV232-93	Seals kit for bag valve SK2VV232-7	232°C
SK2VV232-94	Seals kit for plug SK2VV232-4	232°C
SK2VV232-95	Seals kit for multi cartridge tree SK2VV232-5	232°C
SK2VV232-10	Repair tool kit	-



## **VACUUM HOSES AND VALVE**

**RANGE** 

Name	Description	Max. use T°C
SK2VV232-11	Barb coupling fitting for vacuum hose	232°C
SK2VV232-12	Ferrule to secure the hose socket on the vacuum hose SK2VV232-1	232°C
SK2VV232-14	External spring	232°C
SK2VV232-16	Swaging and hose assembly	-
SK2VV232-18	Standard vacuum hose in the roll	232°C
SK2VV260-3	QRC Socket connector	260°C
SK2VV260-4	QRC Plug	260°C
SK2VV260-7	Twist lock vacuum valve for high temperature processes	260°C
SK2VV260-9	Bag valve gaskets	260°C
SK2VV270-1	Vacuum hose for high temperature process 270°C	270°C
SK2VV270- 1HP	Vacuum hose for high temperature process 270°C and high pressure process	270°C
SK2VV270-2	High Temperature vacuum hose assemblies	270°C
SK2VV270-3	High temperature QRC socket female thread	270°C
SK2VV270-4	High temperature QRC plug	270°C
SK2VV270-5	High temperature multi cartridge tree 3x1	270°C
SK2VV270-6	High temperature QRC blanking cap	270°C
SK2VV270-7	Vacuum bag valve for high temperature process 270°C	270°C
SK2VV270-8	High temperature barb coupling fitting for vacuum hose	270°C
SK2VV270-17	Adaptor for vacuum valves	270°C
SK2VV270-18	High temperature vacuum hose in the roll	270°C



## **VACUUM HOSES AND VALVE**

### **RANGE**

SK2VV400-1	Vacuum hose for high temperature process 400°C	400°C
SK2VV400-3	Cartridge socket	400°C
Name	Description	Max. use T°C
SK2VV400-4	Cartridge plug	400°C
SK2VV400-4 SK2VV400-7	Cartridge plug  Vacuum bag valve for high temperature process 400°C	400°C 400°C

### TECHNICAL DATA SHEET

SK2VV000-2

Vacuum gauge

Back to range

#### DESCRIPTION

SK2VV000-2 is vacuum gauge to determine vacuum pressure under your vacuum bag. It is graduated in two units: scale outside (black) announces in BAR and scale inside (red), announces in PSI.

A blue rubber cap protects the gauge from damage by the using in the composite shop. The gauge stem is a 1/4 inch male BSP thread fitting that fits easily into female Socket quick disconnect SK2VV232-3.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Screw thread: 1/4 inch male BSP

Assembly style: Screwed
Size: 75mm
Protection: Rubber cap
Range: -1 bar till 0 bar
Graduations: -0,05 bar
Accuracy: +/-2,5 %

Use temperature range: -40°C till +60°C



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### ▶ NOTE

For vacuum test follow instruction:

- 1. Install one vacuum valve SK2VV232-7 in the opposite corner of installed vacuum hose, connected to the vacuum pump.
- 2. Screw gauge SK2VV000-2 into socket SK2VV232-3.
- 3. Put vacuum gauges with installed socket on the plug of vacuum valve SK2VV232-7 by using of quick disconnect system.
- 4. Wait till vacuum pump will sock out air from vacuum bag, and you will get stable vacuum.
- 5. Disconnect vacuum hose from vacuum bag.

The deviation of a manometer arrow informs about the leaks.



### **SK2VV000-4MS**

**Manometer** 

Back to range

### DESCRIPTION

SK2VV000-4MS is a manometer for the measurement of gases under pressure with the respect to the strict requirements to the working conditions and norms of labor safety. It can be used at gaseous and fluid medium of pressure propagation not subjected to crystallization, having high viscosity and do not influence on measuring material of the system.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Standard: DIN 16006
Range: 0-10 bar
Graduations: 0,20 bar
Screw thread: G1/2"
Accuracy class: 1.0

Materials:

Body: 1.4301 Gage system and connection: 1.4404

Sight glass: multilayer nonshatterable

glass

Use temperature range: -40°C till +60°C

Max. temperature of

measured medium: +200°C Protection type: IP 65



Storage conditions: it is recommended to store at temperature from +10°C until +30°C in the original packing.



### SK2VV000-5

**Vacuum Test Unit** 

Back to range

#### DESCRIPTION

SK2VV000-5 is a bench mounted multi-functional easy-to-use vacuum test unit for check of vacuum integrity of vacuum hoses, bagging valves, quick disconnect couplings as well as for pressure test of vacuum hoses. The Vacuum Test Unit SK2VV000-5 is ideally suited to test in-service equipment or to check equipment after maintenance like seal replacements on vacuum valves or end-fittings replacements on vacuum hoses.

This product allows saving time loading autoclaves with prechecked hoses, avoiding scrap and part rework due to vacuum loss from leaky hoses, reducing time spent for leak checking due to pretest of the vacuum valves.

This product is used in various manufacturing processes of parts made of composite.

### **▶ TECHNICAL DATA**

Inlet: Vacuum and Pressure

Controls: Each line has ball valve control for Isolation Read out: Each line has 63 mm gauge Read out

Housing: Powder coated steel casing

Reference	Connectors	Vacuum test unit version
SK2VV000-5	2 x quick disconnect plugs vacuum 1 x quick disconnect plugs pressure 1 x vacuum diaphragm 1 x vacuum gauge 1 x pressure gauge	single
SK2VV000-5DUAL	4 x quick disconnect plugs 2 x quick disconnect plugs pressure 2 x vacuum diaphragm 2 x vacuum gauges 1 x pressure gauge	dual



SK2VV000-5

**Vacuum Test Unit** 



SK2VV000-5

### VACUUM LEAKEGES TEST

Vacuum hose test: attach both ends of hose equipped with a female quick disconnect to the plugs. Apply vacuum with an external source then isolate with valve corresponding to the used line. Vacuum drop on the corresponding gauge shows leakage in the vacuum hose.

Pressure hose test\*: attach one end of the hose with a female quick disconnect to the plugs. Apply pressure through an external source then isolate with valve corresponding to the used line. Pressure drop on the corresponding gauge shows leakage in the vacuum hose.

\* Note Inlet pressure is secondary reduced through an internal Test Unit regulator to 1.5 Bar (to prevent any damage to the vacuum hose).

Vacuum valve test: place vacuum valve onto seal diaphragm within base plate, apply vacuum with an external source then isolate with valve. Vacuum drop on the corresponding gauge shows leakage in the vacuum valve.



SK2VV000-6

Vacuum leak indicator

Back to range

#### DESCRIPTION

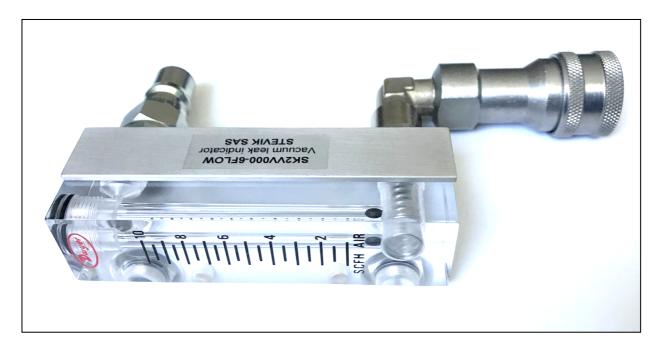
SK2VV000-6 is compact indicator to be installed on the vacuum line for quick and easy detection within a vacuum bag, with the installed quick disconnection nipple and socket. Airflow through indicator cause the internal ball to oscillate and float inside acrylic body, displaying a definite airflow reading which can be read off against the scale. This device allows easy quantification of leak's size.

### **► TECHNICAL DATA**

Construction: Acrylic body with carbon steel connections

(stainless steel at special request)

Range: 0 till 10 SCFH Graduations: 0,5 SCFH



### VACUUM LEAKEGES TEST

- 1. Push socket of the SK2VV000-6 onto the through bag connector plug on tool (on your valve installed through bag).
- 2. Allow collar to retract fully ensuring a vacuum tight connection.
- 3. Connect vacuum source to plug of SK2VV000-6 and pull vacuum.
- 4. Any airflow will be indicated as internal ball floats and registers reading on scale.
- 5. Check bag for leaks until no airflow apparent.



SK2VV232-1

### Standard vacuum hose

Back to range

#### DESCRIPTION

This vacuum hose is a platinum cured silicone hose manufactured to the highest standard which has been developed specially for high temperature applications in autoclaves and ovens, rated to a temperature of 232°C. The internal steel spring prevents collapse under vacuum and pressure and prevents hose separation from the couplings. The external support spring prevents hose lacerations at the fitting ends, extending the hose life. The hose is extremely durable and long lasting, very flexible and user friendly.

The hose has NO silicone loss meaning no contamination worries.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type of hose: Silicone
Material type of inner conduits: Steel spring

Hose color: Green (Available in Black at special request)

Internal hose diameter: 3/8 inch Outer hose diameter: 18mm

End fittings: 1/4 inch male BSP

Maximum use temperature: 232°C Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **► NOTE**

For pressure over 10Bar we recommend hoses Version HP.



SK2VV232-1

Standard vacuum hose

The length of the hose has to be chosen by 0,5m step. The maximum manufactured length is 25 meters.

Recommended maintenance interval: 1000 hours based on operating temperatures up to  $180^{\circ}\text{C}$  when using with our connections.



SK2VV232-2

### Standard vacuum hose assemblies

Back to range

### DESCRIPTION

This vacuum hose assembly is made from platinum cured silicone hose manufactured to the highest standard (gives off no free silicone particles) and is fitted with stainless steel one-piece couplings. This thread-less system provides the highest vacuum performance, reliability and maximum flexibility when used in autoclaves and oven processes up to 232°C. Assemblies are fitted with internal and external support springs. Couplings are fully resealable, without removal from the hose. All couplings are manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type of hose:

Material type of inner conduits:

Material type of socket:

Silicone

Steel spring

Stainless steel

Hose color: Green (Available in Black at special request)

Maximum use temperature: 232°C Maximum autoclave pressure: 10 Bar

### **►** SIZE

Hose type	Socket type	QRC Connection	Hose i.d.	Hose o.d.	Length
SK2VV232-2STR/STR	Straight socket	1/4	3/8	18 mm	1,0m till 25,0m
SK2VV232-2STR/C90	Elbow socket	1/4	3/8	18 mm	1,0m till 25,0m





Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 237 of 460



SK2VV232-2

### Standard vacuum hose assemblies

### **► NOTE**

For pressure over 10Bar we recommend hoses Version HP.

All end fittings are 100% vacuum tested after assembly. The length of the hose has to be chosen by 0,5m step.

Recommended maintenance interval: 1000 hours based on operating temperatures up to 180°C when using with our connections.

### TECHNICAL DATA SHEET

SK2VV232-3

**QRC Socket Connector** 

Back to range

### **▶** DESCRIPTION

This Socket connector is for use in high temperature autoclaves and ovens, high temperature tooling and associated equipment. QRC Socket is female threaded connector. It is easily maintained by resealing without the need to be removed from the hose.

Socket has a threaded female fitting, designed in the way to receive vacuum hose SK2VV232-1 and applied with our plug SK2VV232-4 and vacuum bag valve SK2VV232-7.

All coupling parts are manufactured from stainless steel and Manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 232°C

Coupling size: 1/4

Treaded size: 1/4 inch female BSP

Maximum use temperature: 232°C Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### **► NOTE**

All end fittings are 100% vacuum tested after assembly.

Socket can be delivered with any tread style (for example NPT) on special order.

Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.

### TECHNICAL DATA SHEET

SK2VV232-4

**QRC Plug** 

Back to range

### **▶** DESCRIPTION

This plug is for use in high temperature autoclaves and ovens, high temperature tooling and associated equipment. From the vessel wall or tooling connection the standard plug or cartridge holder can be screwed or welded to form permanent connection to the vacuum line. The easy to remove cartridge plug is then connected into the holder. This can then be easily maintained by resealing or changed over to minimize downtime and maintenance.

All QRC connectors are internally valved to seal when disconnected so when the plug and socket are disconnected, the air flow is shut off in the both couplings. This allows your valves to retain vacuum after the vacuum source has been disconnected. Parts can now be moved from the bagging area to the curing area without loss of vacuum. A Blanking Cap can be fitted for further protection.

Plug has a threaded female fitting, designed in the way to receive vacuum hose SK2VV232-1 and applied with our Socket SK2VV232-3.

Quick disconnect plugs are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and Manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 232°C

Coupling size: 1/4

Treaded size: 1/4 inch female BSP

Maximum use temperature: 232°C Maximum autoclave pressure: 10Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.



SK2VV232-4

**QRC Plug** 

### **▶** NOTE

All end fittings are 100% vacuum tested after assembly.

Plug can be delivered with any tread style (for example NPT) on special order.

Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.



SK2VV232-5

Multi cartridge tree 3x1

Back to range

### **▶** DESCRIPTION

The multi cartridge tree provides a multi-point connection for extra line capacity. A single threaded or QRC inlet can be adapted to either a threaded connection or used a quick disconnect, three outlet connectors provide extra capacity (any number of outlet connectors are available at special request).

Quick disconnect plugs are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and Manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

Material type: Stainless steel

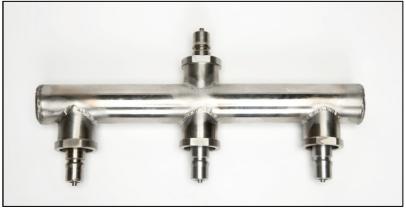
Material type of O ring seals: High temperature Viton 232°C

Coupling size: 1/4 inch

Treaded size: 1/4 inch female BSP

Maximum autoclave pressure: 10 Bar

Tree type	3 Connection	1 Inlet
SK2VV232-51	3 x QRC 1/4	QRC 1/4
SK2VV232-52	3 x QRC 1/4	1/4 inch female BSP



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.



SK2VV232-5

Multi cartridge tree 3x1

### **► NOTE**

All end fittings are 100% vacuum tested after assembly Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.

### TECHNICAL DATA SHEET

SK2VV232-6

**QRC** blanking cap

Back to range

### **▶** DESCRIPTION

The Plug Blanking Cap safeguards autoclave, oven and ambient vacuum connectors by blocking potential leak paths through unused vacuum connections and protecting the valve from pressurization.

Autoclave pressure to vacuum line differential in excess of 3,5 bar will unseat spring loaded seals with quick disconnect plugs on the autoclave wall. This pressure ingress will reduce overall vacuum system performance, putting part quality at risk, it will also place a greater load on vacuum pumps reducing overall service life.

Blanking Caps can also be used with vac-valves to insure against vacuum loss through storage or valve tampering.

Quick disconnect blanking caps are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: Stainless steel

Material type of O ring seals: High Temperature Viton 232°C

Coupling size: 1/4
Maximum use temperature: 232°C
Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.



SK2VV232-6

**QRC** blanking cap

### **► NOTE**

All end fittings are 100% vacuum tested after assembly. Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.



SK2VV232-7

**Vacuum Valve** 

Back to range

### **▶** DESCRIPTION

The patented solid body design combines the function of the male quick disconnects and eliminates the threaded connection preventing leak paths. Robust stainless steel construction ensures corrosion resistance and long life. The SK2VV232-7 is fully compatible with all 1/4 ISO B style quick disconnect sockets.

Valves are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 232°C

Maximum autoclave pressure: 10 Bar

### ► SIZE

Valve type	Base size	QRC Connection	Construction	Assembly style
SK2VV232-72	2 inch	1/4	3 pieces: body, pressure plate, locking ring	Solid body
SK2VV232-73	3 inch	1/4	3 pieces: body, pressure plate, locking ring	Solid body









Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **▶ INSTRUCTION TO USE**

- Cut a small opening in the vacuum bag and push the stem through the opening
- Insert the body under the vacuum bag.
- Apply the gasket and pressure plate on the outside of the vacuum bag
- Screw down the locking ring.



SK2VV232-7

**Vacuum Valve** 

### **► NOTE**

All end fittings are 100% vacuum tested after assembly. Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.



SK2VV232-8

**QRC Socket connectors with internal hosetail** 

Back to range

#### DESCRIPTION

Couplings are for use in high temperature autoclaves and ovens, high temperature tooling and associated equipment. QRC Sockets are available as a straight connector with integral hosetail and 90 degree connector with integral hosetail. All connectors are easily maintained by resealing without the need to be removed from the hose.

Sockets with hosetails are manufactured from one piece (threadless). The thread-less system provides the highest vacuum performance, reliability and maximum flexibility when used in autoclaves and oven processes up to 232°C or 270°C. All coupling parts are manufactured from stainless steel and Manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: Stainless steel

Material type of O ring seals: High temperature Viton

Maximum autoclave pressure: 10 Bar

### **► SIZE**

Connector type	Coupling size	Treaded size	Max. using T°C
SK2VV232-8STR	1/4	3/8 Hose tail	232°C
SK2VV232-8C90	1/4	3/8 Hose tail	232°C
SK2VV270-8STR	1/4	3/8 Hose tail	270°C
SK2VV270-8C90	1/4	3/8 Hose tail	270°C





Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 248 of 460



SK2VV232-8

**QRC Socket connectors with internal hosetail** 

### **► NOTE**

All end fittings are 100% vacuum tested after assembly. Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.



SK2VV232-9

**Seals Kit** 

Back to range

### **▶ DESCRIPTION**

All connectors in the range are fully resealable and seal kits are available as standard for all connectors. Each kit comes with complete components for 10 couplings reseals. This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

You have possibility to order:

Description	Ordering number for 232°C seal kits	Ordering number for 270°C seal kits
Socket seal kit	SK2VV232-91	SK2VV270-91
Blanket cap seal kit	SK2VV232-92	SK2VV270-92
Vacuum valve seal kit	SK2VV232-93	SK2VV270-93
Vacuum valve clamping kit	SK2VV232-94	SK2VV270-94
Plug seal kit	SK2VV232-95	SK2VV270-95
Cartridge seal kit	SK2VV232-96	SK2VV270-96



Storage: it is recommended to store at temperature from +10°C until +30°C in the original packing.

#### ▶ NOTE

Recommended maintenance interval 1000hours based on operating temperatures up to 180°C when using with our connections.



SK2VV232-91

**Socket seals Kit** 

Back to range

### DESCRIPTION

All connectors in our range are fully resealable and seal kits are available as standard for all connectors. Each kit comes with necessary components for 10 sockets reseals. This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Contain	Quantity in kit	Description	View
03-001160	10 pce	Socket srindle spring	CCCCCC
02-001050	20 pce	Socket body seal	00
02-001060	10 pce	Socket top seal	0
02-001040	10 pce	Socket cap seal	0
02-001010	10 pce	Socket pin seal	0

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **►** NOTE

Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.

### TECHNICAL DATA SHEET

SK2VV232-92

Blank cap seal kit

Back to range

### DESCRIPTION

All connectors in our range are fully resealable and seal kits are available as standard for all connectors. Each kit comes with nessesary components for 10 blank caps reseals. This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Contain	Quanty in kit	Description	View
02-001050	20 pce	Blanking cap body seal	0
02-001060	10 pce	Blanking cap top seal	00

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**

Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.

# TECHNICAL DATA SHEET

SK2VV232-93

Bag valve seal kit

Back to range

### DESCRIPTION

All connectors in our range are fully resealable and seal kits are available as standard for all connectors. Each kit comes with necessary components for 10 vacuum bag valves reseals.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Contain	Quantity in kit	Description	View
03-001160	10 pce	Bag spindle spring	80000
02-001030	10 pce	Bag pin seal	0
02-001100	10 pce	Bag int-cir-clip	2
04-001010	10 pce	Bag red washer	

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **▶** NOTE

# TECHNICAL DATA SHEET

SK2VV232-94

Plug seal kit

Back to range

### **▶** DESCRIPTION

All connectors in our range are fully resealable and seal kits are available as standard for all connectors. Each kit comes with necessary components for 10 plugs reseals. This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Contain	Quantity in kit	Description	View
03-001160	10 pce	Plug spindle spring	90000
02-001020	10 pce Plug pin sea		0
02-001070	10 pce	Plug base seal	0
02-001100	10 pce	Plug int-cir-clip	6

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **►** NOTE

# TECHNICAL DATA SHEET

SK2VV232-95

Cartridge seal kit

Back to range

### DESCRIPTION

All connectors in our range are fully resealable and seal kits are available as standard for all connectors. Each kit comes with necessary components for 10 cartridge reseals. This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

Contain	Quantity in kit	Description	View
03-001160	10 pce	Cart spindle spring	90000
02-001100	10 pce	Cart int-cir-clip	0
02-001030	10 pce	Cart pin seal	0
02-001070	10 pce	Cart base seal	0
02-001080	20 pce	Cart body seal	00

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **►** NOTE



SK2VV232-10

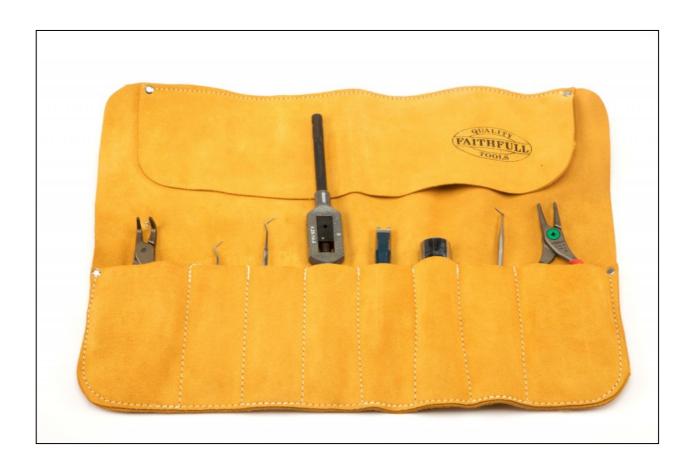
**Tool Kit** 

### **DESCRIPTION**

Each kit includes everything you need to reseal and maintain your couplings.

The tool kit contains:

Contain	For use with
O-Ring placement pick	Bag Valves, Sockets, blanking caps
O-Ring removal pick	Bag Valves, Sockets, blanking caps
T Bar	Sockets
Circlip pliers	Bag Valves, cartridges, plugs
Carry case	





SK2VV232-10

**Tool Kit** 

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **►** NOTE

All end fittings are 100% vacuum tested after assembly.

# TECHNICAL DATA SHEET

SK2VV232-11

**Fitting** 

Back to range

### DESCRIPTION

Barb coupling fitting with male screw end in 1/4 inches, connection size 3/8 inches for installation inside the hose and fixing internal spring.

This product is used in various manufacturing processes of parts made of composite.

### **▶ TECHNICAL DATA**

Material type: Brass
Connection size: 3/8 inch

End fittings: 1/4 inch male NTP or BSP

Maximum use temperature: 232°C



Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **► NOTE**

# TECHNICAL DATA SHEET

SK2VV232-12

**Ferrule** 

Back to range

### DESCRIPTION

A lightweight ferrule to secure the hose coupling for SK2VV232-1.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Material type: Stainless steel
Material type for O-ring seal: Viton rubber
Connection size: 1/4 inch

End fittings: 1/4 inch, female screw thread BSP

Maximum use temperature: 232°C Maximum pressure in autoclave: 10 bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**



SK2VV232-14

**External spring** 

Back to range

### **DESCRIPTION**

The external spring provides support to the swaged area and prevents kinking. Simply pull over the ferrule after swaging.

The product is used in different processes of manufacturing and repair of parts from polymer composite materials.



### **▶ TECHNICAL DATA**

Color: Silver Maximum use temperature: 232°C

#### **► SIZE**

Reference for order	Hose external diameter
SK2VV232-14	3/8
SK2VV232-14A	1/2

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

#### **▶ NOTE**

### TECHNICAL DATA SHEET

SK2VV232-16

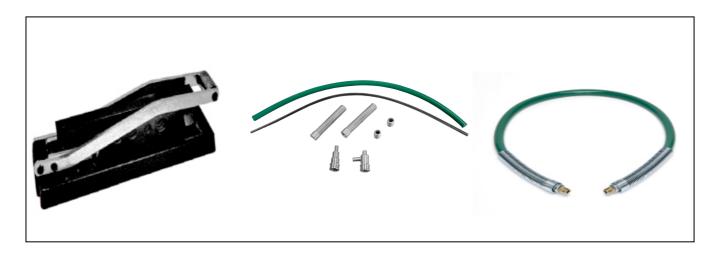
### **Swaging and Hose Assembly**

Back to range

### **▶ DESCRIPTION**

The Swaging machine allows hose crimping to be done on hose assemblies with either 3/8" or 1/2" hose. The unit is suitable for new assemblies and for hose repairs. The swaging machine is compact, lightweight and easy to use.

This product is used in various manufacturing processes of parts made of composite materials.



### ► HOSE ASSEMBLY

Before operating the hose crimping machine, close the crimper and adjust the screw opposite the end where the handle attaches until the screw just touches the end stop. Never turn the screw tighter than this. The screw should be looser if the hose barb fits very tightly and the ferrule is close-fitting.

- Cut the hose to the final hose length desired
- Cut the stainless steel spiral 5 cm longer than the hose
- Place ferrule on the hose
- Screw the barbed fitting on the stainless steel spiral and insert the barb inside the hose
- Open the hose crimping machine by raising handle
- Place hose into the crimping machine, centering the ferrule on the appropriate die
- Press down on handle until it hits the end stop. Lift up and rotate hose 90 °
- Once crimped the coupling will be difficult to rotate by hand



SK2VV232-16

**Swaging and Hose Assembly** 

For making new standard hose you will need 4 items:

Reference	Description	Unit	Quantity for one hose
SK2VV232-11	Brass hosetail, thread NPTM 1/4", hose i.d. 3/8"	pcs	2 pcs
SK2VV232-12	A light weight ferrule to secure a house coupling	pcs	2 pcs
SK2VV232-14	External spring, provides support to the swaged area and prevents kinking, silver	pcs	2 pcs
SK2VV232-18	Silicon hose with integrated reinforcing internal spring inside, T=232°C	linear meter	(consumption depending on desired hose length)

For making new full assemblies hose you will need 4 items:

Reference	Description	Unit	Quantity for one hose
SK2VV232-8	SK2VV232-8STR - QRC straight socket connector, coupling size: 1/4 inch, core size: 3/8 inch or SK2VV232-8C90 - QRC elbow (90°) socket connector, coupling size: 1/4 inch, core size: 3/8 inch	pcs	2 pcs
SK2VV232-12	A light weight ferrule to secure a house coupling	pcs	2 pcs
SK2VV232-14	External spring, provides support to the swaged area and prevents kinking, silver	pcs	2 pcs
SK2VV232-18	Silicon hose with integrated reinforcing internal spring inside, T=232°C	linear meter	(consumption depending on desired hose length)

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **▶** NOTE

# TECHNICAL DATA SHEET

SK2VV232-18

### Standard vacuum hose in the roll

Back to range

### DESCRIPTION

This vacuum hose is a platinum cured silicone hose manufactured to the highest standard which has been developed specially for high temperature applications in autoclaves and ovens, rated to a temperature of 232°C. The internal steel spring prevents collapse under vacuum and pressure.

The hose is extremely durable and long lasting, very flexible and user friendly. The hose has NO silicone loss meaning no contamination worries.

This product is used in various manufacturing processes of parts made of composite.

### **► TECHNICAL DATA**

Material type of hose: Silicone Material type of inner conduits: Steel spring Hose color: Green Length of the roll: 25m Internal hose diameter: 3/8 inch Outer hose diameter: 3/4 inch 232°C Maximum use temperature: Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **► NOTE**



SK2VV260-3

**QRC Socket Connector** 

Back to range

#### DESCRIPTION

This QRC Socket connector is made of high-carbon steel specially treated to prevent oxidation. It is used in high temperature autoclaves and ovens, high temperature tooling and associated equipment. The socket is equipped with closing valve which guarantee vacuum tightness of vacuum bag after disconnection of vacuum hose. Parts can be moved from the bagging area to the curing area without loss of vacuum.

The socket has a threaded female fitting, designed to receive vacuum hose SK2VV270-1 and be used with our plugs SK2VV260-4, SK2VV270-4 and vacuum bag valves SK2VV260-7 and SK2VV270-7.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Material type: Carbon steel

Material type of O-ring seal: Viton

Thread size: 1/4 inch female BSP

Maximum use temperature: 260°C



### **▶** NOTE

All connectors passed vacuum tightness test after assembly. Socket can be delivered with any connection type (for example NPT) on special order. Maximum working temperature depends on the process duration at the maximum temperature and process conditions. We strongly recommend you provide test before using.



SK2VV260-4

**QRC Plug** 

Back to range

### **▶** DESCRIPTION

This QRC Plug is made of high-carbon steel specially treated to prevent oxidation. It is used in high temperature autoclaves and ovens, high temperature tooling and associated equipment. The Plug is equipped with closing valve which guarantee vacuum tightness of vacuum bag after disconnection of vacuum hose. Parts can be moved from the bagging area to the curing area without loss of vacuum.

The Plug has a threaded female fitting, designed to receive vacuum hose SK2VV270-1 and be used with our QRC Socket Connectors SK2VV260-3, SK2VV270-3 and vacuum bag valves SK2VV260-7.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Material type: Carbon steel

Material type of O-ring seal: Viton

Thread size: 1/4 inch female BSP

Maximum use temperature: 260°C



### ▶ NOTE

All connectors passed vacuum tightness test after assembly. Plug can be delivered with any connection type (for example NPT) on special order. Maximum working temperature depends on the process duration at the maximum temperature and process conditions. We strongly recommend you provide test before using.



SK2VV260-7

### Twist lock vacuum valve for high temperature processes

Back to range

### **▶** DESCRIPTION

Aluminium twist lock vacuum valve SK2VV260-7 is ideally suited for usage with our quick-release connections (QRC): QRC Plug SK2VV260-4 and QRC Socket Connector SK2VV260-3 in the ovens and autoclaves at the temperature up 260°C.

Valve is available in two different types: standard with red sealing ring and economy with black sealing ring.

This product is used in manufacturing processes of composite parts.

### ► TECHNICAL DATA

Material type: Aluminium
Material type of O ring seals: Silicon rubber

Maximum working temperature: 260°C

Design: 2 parts: base and upper part with sealing ring

Valve type	Base size	QRC Connection	Туре
SK2VV260-7RD25BSP	2,5 inches	1/4 BSP	standard
SK2VV260-7RD25NPT	2,5 inches	1/4 NPT	standard
SK2VV260-7BK25BSP	2,5 inches	1/4 BSP	economy
SK2VV260-7BK25NPT	2,5 inches	1/4 NPT	economy







SK2VV260-7

Twist lock vacuum valve for high temperature processes





### ► INSTRUCTION FOR USE

- Insert valve base under the vacuum bag.
- Cut a small hole in the vacuum bag
- Put upper part of the valve in the valve base through the hole in vacuum bag.
- Screw down upper part of the valve.

### **▶** NOTE

Maximum working temperature depends on the process duration at the maximum temperature and process conditions. We strongly recommend you provide test before using.

# TECHNICAL DATA SHEET

SK2VV260-9

Bag valve gaskets

Back to range

### **▶ DESCRIPTION**

Set of high temperature spare gaskets for our aluminium twist lock vacuum valves SK2VV260-7. Due to the aging of gaskets trough temperature, chemical evaporations and pressure imfluence, replacement is necessary for restoration of tightness of all systems of products.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: Silicone Color: Silicone Black or Red

Outside diameter: 50mm
Inside diameter: 14,2mm
Thickness: 3mm
Maximum use temperature: 260°C

Reference to order	Color	Quantity in set, pce
SK2VV260-93	Red	10
SK2VV260-93	Black	10

Storage conditions: it is recommended to store at temperature from +10°C until +30°C in the original packing.

#### ▶ NOTE



### SK2VV270-1

### Vacuum hose for high temperature process 270°C

Back to range

#### **▶** DESCRIPTION

This vacuum hose is a platinum cured silicone hose manufactured to the highest standard which has been developed specially for high temperature applications in autoclaves and ovens, rated to a temperature of 270°C. The internal steel spring prevents collapse under vacuum and pressure and prevents hose separation from the couplings. The external support spring prevents hose lacerations at the fitting ends, extending the hose life.

The hose is extremely durable and long lasting, very flexible and user friendly.

The hose has NO silicone loss meaning no contamination worries.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type of hose: Silicone
Material type of inner conduits: Steel spring

Hose color: Red
Internal hose diameter: 3/8 inch
Outer hose diameter: 18mm

End fittings: 1/4 inch male BSP

Maximum use temperature: 270°C Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30 °C in original packing.

### **► NOTE**

The length of the hose has to be chosen by 0,5m step.

The maximum manufactured length is 25 meters.



### **SK2VV270-1HP**

Vacuum hose for high temperature and high pressure process

Back to range

### DESCRIPTION

This vacuum hose is a platinum cured silicone hose manufactured to the highest standard which has been developed specially for high pressure till 20 Bar and high temperature applications in autoclaves, rated to a temperature of 270°C. The internal steel spring prevents collapse under vacuum and pressure and prevents hose separation from the couplings. The external support spring prevents hose lacerations at the fitting ends, extending the hose life.

The hose is extremely durable and long lasting, very flexible and user friendly. The hose has NO silicone loss meaning no contamination worries.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Material type of hose: Silicone Material type of inner conduits: Steel spring

Hose color: Red
Internal hose diameter: 3/8 inch
Outer hose diameter: 19mm

End fittings: 1/4 inch male BSP or NPT (on request)

Maximum use temperature: 270°C Maximum autoclave pressure: 20 Bar



Storage conditions: it is recommended to store at temperature from +10°C until +30°C in the original packing.



### **SK2VV270-1HP**

Vacuum hose for high temperature and high pressure process

### ▶ NOTE

The length of the hose has to be chosen by 0,5m step. The maximum manufactured length is 25 meters.



SK2VV270-2

### High temperature vacuum hose assemblies

Back to range

#### DESCRIPTION

This vacuum hose assembly is made from platinum cured silicone hose manufactured to the highest standard (gives off no free silicone particles) and is fitted with stainless steel one-piece couplings. This thread-less system provides the highest vacuum performance, reliability and maximum flexibility when used in autoclaves and oven processes up to 270°C. Assemblies are fitted with internal and external support springs. Couplings are fully resealable, without removal from the hose. All couplings are manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type of hose:

Material type of inner conduits:

Material type of socket:

Silicone

Steel spring

Stainless steel

Hose color: Red
Maximum use temperature: 270°C
Maximum autoclave pressure: 10 Bar

### **► SIZE**

Hose type	Socket type	QRC Connection	Hose i.d.	Hose o.d.	Length
SK2VV270-2STR/STR	Straight socket	1/4	3/8	18 mm	1,0m till 25,0m
SK2VV270-2STR/C90	Elbow socket	1/4	3/8	18 mm	1,0m till 25,0m





Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 272 of 460



SK2VV270-2

High temperature vacuum hose assemblies

### ▶ NOTE

All end fittings are 100% vacuum tested after assembly. The length of the hose has to be chosen by 0,5m step. Recommended maintenance interval: 1000 hours based on operating temperatures up to 180°C when using with our connections.

# TECHNICAL DATA SHEET

SK2VV270-3

**QRC Socket Connector** 

Back to range

### DESCRIPTION

This Socket connector is for use in high temperature autoclaves and ovens, high temperature tooling and associated equipment. QRC Socket is female threaded connector. It is easily maintained by resealing without the need to be removed from the hose.

Socket has a threaded female fitting, designed in the way to receive vacuum hose SK2VV270-1 and applied with our plug SK2VV270-4 and vacuum bag valve SK2VV270-7.

All coupling parts are manufactured from stainless steel and manufactured to ISO B. This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 270°C

Coupling size: 1/4

Treaded size: 1/4 inch female BSP

Maximum use temperature: 270°C Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

#### ▶ NOTE

All end fittings are 100% vacuum tested after assembly Socket can be delivered with any tread style (for example NPT) on special order. Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.



SK2VV270-4

**QRC Plug** 

Back to range

### **▶** DESCRIPTION

This plug is for use in high temperature autoclaves and ovens, high temperature tooling and associated equipment. From the vessel wall or tooling connection the standard plug or cartridge holder can be screwed or welded to form permanent connection to the vacuum line. The easy to remove cartridge plug is then connected into the holder. This can then be easily maintained by resealing or changed over to minimize downtime and maintenance.

All QRC connectors are internally valved to seal when disconnected so when the plug and socket are disconnected, the air flow is shut off in the both couplings. This allows your valves to retain vacuum after the vacuum source has been disconnected. Parts can now be moved from the bagging area to the curing area without loss of vacuum. A Blanking Cap can be fitted for further protection.

Plug has a threaded female fitting, designed in the way to receive vacuum hose SK2VV270-1 and applied with our Socket SK2VV270-3.

Quick disconnect plugs are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and Manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 270°C

Coupling size: 1/4

Treaded size: 1/4 inch female BSP

Maximum use temperature: 270°C Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.



SK2VV270-4

**QRC Plug** 

### **▶** NOTE

All end fittings are 100% vacuum tested after assembly.

Plug can be delivered with any tread style (for example NPT) on special order.



### SK2VV270-5

Multi cartridge tree 3x1

Back to range

### DESCRIPTION

The multi cartridge tree provides a multi-point connection for extra line capacity. A single threaded or QRC inlet can be adapted to either a threaded connection or used a quick disconnect, three outlet connectors provide extra capacity (any number of outlet connectors are available at special request).

Quick disconnect plugs are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 270°C

Coupling size: 1/4

Treaded size: 1/4 inch female BSP

Maximum autoclave pressure: 10 Bar

Tree type	3 Connection	1 Inlet
SK2VV270-51	3 x QRC 1/4	QRC 1/4
SK2VV270-52	3 x QRC 1/4	1/4 inch female BSP



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.



SK2VV270-5

Multi cartridge tree 3x1

### ▶ NOTE

All end fittings are 100% vacuum tested after assembly. Recommended maintenance interval 1000 hours based on operating temperatures up to 180°C when using with our connections.

### TECHNICAL DATA SHEET

SK2VV270-6

**QRC** blanking cap

Back to range

### DESCRIPTION

The Plug Blanking Cap safeguards autoclave, oven and ambient vacuum connectors by blocking potential leak paths through unused vacuum connections and protecting the valve from pressurization.

Autoclave pressure to vacuum line differential in excess of 3,5 bar will unseat spring loaded seals with quick disconnect plugs on the autoclave wall. This pressure ingress will reduce overall vacuum system performance, putting part quality at risk, it will also place a greater load on vacuum pumps reducing overall service life.

Blanking Caps can also be used with vac-valves to insure against vacuum loss through storage or valve tampering.

Quick disconnect blanking caps are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and manufactured to ISO B. This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 270°C

Coupling size: 1/4
Maximum using temperature: 270°C
Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **▶** NOTE

All end fittings are 100% vacuum tested after assembly.



SK2VV270-7

### Vacuum valve for high temperature process 270°C

Back to range

### DESCRIPTION

The patented solid body design combines the function of the male quick disconnects and eliminates the threaded connection preventing leak paths. Robust stainless steel construction ensures corrosion resistance and long life. The SK2VV270-7 is fully compatible with all 1/4 ISO B style quick disconnect sockets.

Valves are fitted with high temperature seals and are fully resealable. All parts are manufactured from stainless steel and manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: Stainless steel

Material type of O ring seals: High temperature Viton 270°C

Maximum autoclave pressure: 10 Bar

### **► SIZE**

Valve type	Base size	QRC Connection	Construction	Assembly style
SK2VV270-72	2 inch	1/4	3 pieces: body, pressure plate, locking ring	Solid body
SK2VV270-73	3 inch	1/4	3 pieces: body, pressure plate, locking ring	Solid body









### INSTRUCTION TO USE

- Insert the body under the vacuum bag.
- Cut a small opening in the vacuum bag and push the stem through the opening.
- Apply the gasket and pressure plate on the outside of the vacuum bag.
- Screw down the locking ring.

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.



SK2VV270-7

Vacuum valve for high temperature process 270°C

### ▶ NOTE

All end fittings are 100% vacuum tested after assembly.

# TECHNICAL DATA SHEET

SK2VV270-8

Fitting for vacuum hose

Back to range

### **▶ DESCRIPTION**

Brass fitting for a vacuum hose a step adapter has on the one side barbed connection in 3/8 inch, and on the other side male screw end in 1/4 inches BSP.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: Brass External diameter barbed side: 3/8 inch

End fittings: 1/4 inch male BSP

Maximum use temperature: 270°C



Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **► NOTE**



SK2VV270-17

### Adaptor for vacuum valves

Back to range

### DESCRIPTION

Adaptors for vacuum valves and quick connectors for autoclave and oven applications. This kind of adaptors are used for changing of the carving type and size.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Material type: Stainless steel

End Fittings: Male/Male and Male/Female

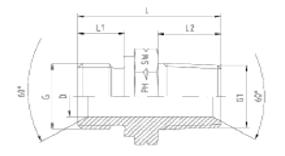
Maximum use temperature: 270°C

### **BSP - Parallel - NPT**

BSP – Male with 60°-Cone and sealing shoulder form B.

NPT – Male with 60°-Cone.





F	PRESSURE	THREAD		APPROX. DIMENSIONS							
	PN	G=BSP	G1=NPT	L	L1	L2	D	SW			

### **Series A**

400	1/8"-28	1/8"-27	24,5	8	10,0	4,0	14
400	1/4"-19	1/4"-18	32,5	10	15,0	6,0	19
400	3/8"-19	3/8"-18	38,0	12	15,3	9,0	22
400	1/2"-14	1/2"-14	43,0	14	20,0	12,5	27

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 283 of 460



SK2VV270-17

### Adaptor for vacuum valves

400	3/4"-14	3/4"-14	47,0	16	20,0	17,5	32
400	1"-11	1"-11,5	54,5	18	25,0	22,5	41
200	1 1/4"-11	1 1/4"-11,5	66,0	20	25,5	30,0	50
200	1 1/2"-11	1 1/2"-11,5	64,0	22	26,0	37,0	55
100	2"-11	2"-11,5	66,0	25	26,0	45,0	70

### **Series B**

400	1/8"-28	1/4"-18	30,0	8	15,0	4,0	14
400	1/4"-19	1/8"-27	27,5	10	10,0	4,0	19
400	1/4"-19	3/8"-18	33,0	10	15,3	6,0	19
400	1/4"-19	1/2"-14	40,0	10	20,0	6,0	22
400	3/8"-19	1/4"-18	35,5	12	15,0	7,0	22
400	3/8"-19	1/2"-14	42,0	12	20,0	9,0	22
400	3/8"-19	3/4"-14	42,0	12	20,0	9,0	27
400	1/2"-14	1/4"-18	40,0	14	15,0	7,0	27
400	1/2"-14	3/8"-18	40,0	14	15,3	9,0	27
400	1/2"-14	3/4"-14	45,0	14	20,0	12,0	27
400	3/4"-14	1/2"-14	45,0	16	20,0	12,5	32
400	3/4"-14	1"-11,5	52,0	16	25,0	17,5	36
400	1"-11	3/8"-18	45,0	18	15,3	9,0	41
400	1"-11	1/2"-14	50,0	18	20,0	12,5	41
400	1"-11	3/4"-14	50,0	18	20,0	15,0	41



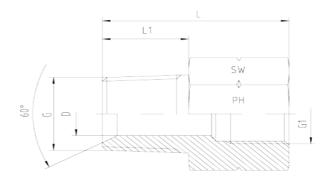
SK2VV270-17

Adaptor for vacuum valves

### NPT - Male - NPT - Female - Form B

NPT – Male with 60°-Cone NPT - Female





PRESSURE	THR	А	APPROX. DIMENSIONS					
PN	G=NPT	G1=NPT	L	L1	D	sw		
630	1/8"-27	1/8"-27	25,0	10,0	4,0	14	В	
630	1/8"-27	1/4"-18	31,0	10,0	4,0	19	В	
630	1/4"-18	1/8"-27	30,0	15,0	6,0	14	В	
630	1/4"-18	1/4"-18	36,0	15,0	6,0	19	В	
630	1/4"-18	3/8"-18	37,0	15,0	6,0	24	В	
630	1/4"-18	1/2"-14	42,0	15,0	6,0	27	В	
630	3/8"-18	1/4"-18	36,0	15,0	9,0	19	В	
630	3/8"-18	3/8"-18	37,0	15,0	9,0	24	В	
630	3/8"-18	1/2"-14	41,0	15,0	9,0	27	В	
630	1/2"-14	3/8"-18	39,5	20,0	12,0	24	В	
630	1/2"-14	1/2"-14	46,0	20,0	12,0	27	В	
630	1/2"-14	3/4"-14	48,0	20,0	12,0	36	В	
630	3/4"-14	1/2"-14	42,0	20,0	15,0	27	В	
630	3/4"-14	3/4"-14	48,0	20,0	18,0	36	В	



SK2VV270-17

Adaptor for vacuum valves

400	3/4"-14	1"-11,5	50,0	20,0	18,0	36	В
400	1"-11,5	3/4"-14	34,0	25,0	22,6	36	В
400	1"-11,5	1"-11,5	57,0	25,0	21,0	41	В
400	1"-11,5	1 1/4"-11,5	57,0	25,0	21,0	50	В
400	1 1/4"-11,5	1"-11,5	54,0	25,5	28,5	46	В
400	1 1/4"-11,5	1 1/4"-11,5	55,0	25,5	30,0	50	В
400	1 1/4"-11,5	1 1/2"-11,5	62,5	25,5	30,0	55	В
400	1 1/2"-11,5	1 1/4"-11,5	55,0	26,0	36,0	50	В
400	1 1/2"-11,5	1 1/2"-11,5	63,0	26,0	36,0	55	В
315	1 1/2"-11,5	2"-11,5	64,0	26,0	36,0	70	В

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.



SK2VV270-18

### High temperature vacuum hose in the roll

Back to range

### DESCRIPTION

This vacuum hose is a platinum cured silicone hose manufactured to the highest standard which has been developed specially for high temperature applications in autoclaves and ovens, rated to a temperature of 270°C. The internal steel spring prevents collapse under vacuum and pressure.

The hose is extremely durable and long lasting, very flexible and user friendly. The hose has NO silicone loss meaning no contamination worries.

This product is used in various manufacturing processes of parts made of composite.

### **▶ TECHNICAL DATA**

Silicone Material type of hose: Material type of inner conduits: Steel spring Hose color: Red Length of the roll: 25m Internal hose diameter: 3/8 inch 3/4 inch Outer hose diameter: Maximum use temperature: 270°C Maximum autoclave pressure: 10 Bar



Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **▶** NOTE



SK2VV400-1

Vacuum hose for high temperature process 400°C

Back to range

#### DESCRIPTION

This super high temperature vacuum hose is a stainless steel hose with a specially designed welded end fittings for maximum durability. It is manufactured to the highest standard which has been developed specially for high temperature applications in autoclaves and ovens, rated to a temperature of 400°C. Super high temperature hoses are manufactured to the highest grade and finish to provide a seal-less connection of the highest integrity. The fitting is welded into hose and assemblies are 100% vacuum tested.

The hose is extremely durable and long lasting and user friendly.

This product is used in various manufacturing processes of parts made of composite.

### ► TECHNICAL DATA

Material type of hose: 316 stainless steel

Hose color: iron grey Internal hose diameter: 3/8 inch Outer hose diameter: 1/4 - 3/4 inch

End fittings: welded 1/4 inch female BSP F (female) nuts

Maximum use temperature: 400°C



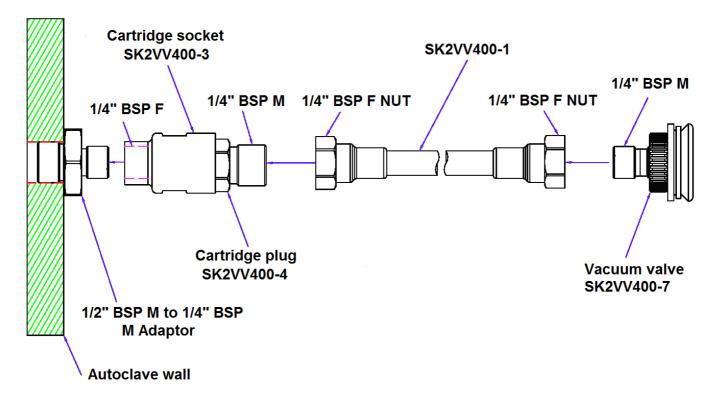
Pic.: Assembled hose SK2VV400-1H14BSPSTR90



SK2VV400-1

Vacuum hose for high temperature process 400°C

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.



Assembling schema for using of super high temperature products for processes till 400°C

#### ▶ NOTE

The length of the hose has to be chosen by 0,5m step. The maximum manufactured length is 12 meters.

Possible size of end fittings: 1/4 or 3/8 inch female BSP F (female)

Hoses can be delivered with straight or elbow 90° fittings.



SK2VV400-3

**Cartridge Socket** 

Back to range

#### DESCRIPTION

SK2VV400-3 is a super high temperature cartridge socket which is used in high temperature autoclaves and ovens, high temperature tooling and associated equipment at working temperature of 400°C. It has a threaded female fitting and should be installed with high temperature sealant or welded to the vessel wall. It is applied with our plug SK2VV400-4 and vacuum bag valve SK2VV400-7.

All coupling parts are manufactured from stainless steel and Manufactured to ISO B. This product is used in various manufacturing processes of parts made of composite.

#### ► TECHNICAL DATA

Material type: Stainless steel

Coupling size: 1/4

Treaded size: 1/4 inch female BSP

Maximum use temperature: 400°C



Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### **▶** NOTE

All end fittings are 100% vacuum tested after assembly

# S T E

### TECHNICAL DATA SHEET

SK2VV400-4

**Cartridge Plug** 

Back to range

#### DESCRIPTION

SK2VV400-4 is a super high temperature cartridge plug for using in high temperature autoclaves and ovens, high temperature tooling and associated equipment at working temperature of 400°C. It has male threaded fitting designed in the way to receive vacuum hose SK2VV400-1 and applied with our socket SK2VV400-3. SK2VV400-4 is screwed in and seals on a special taper system.

All parts are manufactured from stainless steel and Manufactured to ISO B. This product is used in various manufacturing processes of parts made of composite.

#### ► TECHNICAL DATA

Material type: Stainless steel

Coupling size: 1/4

Treaded size: 1/4 inch male BSP

Maximum use temperature: 400°C



Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### **▶** NOTE

All end fittings are 100% vacuum tested after assembly.



SK2VV400-7

Vacuum valve for high temperature process 400°C

Back to range

#### **▶ DESCRIPTION**

SK2VV400-7 is a super high temperature vacuum valve that is designed for processes having the working temperature of 400°C. Robust stainless steel construction ensures corrosion resistance and long life. The SK2VV400-7 is connected with the super high temperature hose SK2VV400-1 through 1/4" BSP male thread. The valve seals to the mould tool with a super high temperature flat seal and secured with a clamping washer and locking nut.

All parts are manufactured from stainless steel and manufactured to ISO B.

This product is used in various manufacturing processes of parts made of composite.

#### ► TECHNICAL DATA

Material type: 316 stainless steel

Coupling size: 1/4

Treaded size: 1/4 inch male BSP

Working temperature: 400°C

#### ► SIZE

Valve type	Base size	Connection	Construction	Assembly style
SK2VV400-72	2 inch	1/4	3 pieces: body, pressure plate, locking ring	Solid body
SK2VV400-73	3 inch	1/4	3 pieces: body, pressure plate, locking ring	Solid body





It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 292 of 460



SK2VV400-7

Vacuum valve for high temperature process 400°C

#### INSTRUCTION TO USE

- Insert the body under the vacuum bag.
- Cut a small opening in the vacuum bag and push the stem through the opening.
- Apply pressure plate on the outside of the vacuum bag.
- Screw down the locking ring.

Storage conditions: it is recommended to store at temperature from -20°C until +30°C in the original packing.

#### **▶** NOTE

All end fittings are 100% vacuum tested after assembly.



# **TOOLING MATERIALS**

**RANGE** 

Back to content

BOARDS AND ADHESIVES FOR MASTER MODEL MANUFACTURING			
Name	Description	Max. use T°C	Color
SK2TM60-1	Polyurethane board for master models	60°C	Pink
SK2TM60-2	Epoxy adhesive for bonding of boards SK2TM60-1	60°C	Black
SK2TM75-4	Polyurethane board for master models	75°C	Brown
SK2TM75-5	Epoxy adhesive for bonding	75°C	Light brown
SK2TM80-1	Abrasion resistant machinable board	80°C	Green
SK2TM80-2	Epoxy adhesive for bonding of PU boards	80°C	Pink
SK2TM80-3	Hard epoxy surface coat for board SK2TM125-1	80°C	-
SK2TM90-2	Polyurethane board for master models	90°C	Braun
SK2TM92-1	Tooling board with aluminium filler	92°C	Grey
SK2TM125-1	Epoxy tooling board for master-model	125°C	Blue
SK2TM125-2	Adhesive for epoxy board SK2TM125-1	125°C	Blue
SK2TM200-5	High temperature board for model-master	200°C	Light yellow
SK2TM200-6	Adhesive paste for bonding boards by prototype tooling	200°C	Yellow- brown
	MATERIALS FOR TOOLING MANUFACTUR	ING	
Name	Description	Max. use T°C	Color
SK2TM130-1	Epoxy laminating system by infusion	130°C	Amber
SK2TM170-1	Two-component epoxy resin system	170°C	Brown
SK2TM180-1	Two component epoxy gel coat	180°C	Black
SK2TM190-1	Curing Epoxy Tooling Prepreg	190°C	-

# **TOOLING MATERIALS**



**RANGE** 

SK2TM200-3	Epoxy resin system for infusion	200°C	Amber		
SK2TM200-8	Polyester filler for repairing the surface of the mould	200°C	Varies		
SK2TM200-11	Styrene Free Polyester Gel Coat	200°C	Green		
SK4CV-1	Carbon veil with PVA binder	-	Black		
SK4CV-2	Carbon veil with styrene soluble polyester binder	ı	Black		
SK4CV-3	Carbon veil with cross-linked polyester binder	ı	Black		
SK4CV-4	Carbon veil with cross-linked styrene acrylic binder	1	Black		
SK4GV-1	Glass veil	-	White		
	MATERIALS FOR WASH-AWAY MANDREI	_S			
Name	Description	Max. use T°C	Color		
SK2TM200-1	Powdered mandrel material for mixing with water before use.	200°C	White		
SK2TM200-2	Water soluble fugitive core material ready to use.	200°C	White		
SK2TM200-4	Spray-/brushable seal for mandrel	200°C	Blue		
SK2TM200-7	Block for manufacturing of mandrel	200°C	Light grey		
SK2TM200-9	Paste for filling, bonding or patching	200°C	White		
	MASTER MODEL MATERIALS				
Name	Description	Max. use T°C	Color		
MM TM70-RIM	Set of technological tool – master-model for composite skin tool manufacturing in resin infusion technology according to the Specification of the customer	70°C	Grey		
	MASTER MODEL COMPOUNDS				
Name	Description	Max. use T°C	Color		
SK2TM65-1	Two-component compound for master model build-up	65°C	Off grey		



# **TOOLING MATERIALS**

#### **RANGE**

SK2TM70-4	Two-component compound for master model build-up	70°C	Grey
SK2TM75-6	Two-component compound for master model manufacturing and mold build-up	75°C	Grey



SK2TM60-1

#### Polyurethane board for master models

Back to range

#### DESCRIPTION

SK2TM60-1 is a polyurethane board designed for production of patterns, mock-ups, prototypes and masters by milling or machining by hand.

#### **▶ PROPERTIES**

- Non porous material
- Excellent surface aspect (direct paint after sanding)
- Very good dimensional stability
- Machining by hand or by machine with wood cutting tools or aluminium cutting tools.



PHYSICAL PROPERTIES <sup>1</sup>			
Colour		Pink	
Density at 23°C	ISO 2781 : 1996	0,45	

MECHANICAL AND HEAT PROPERTIES AT 23°C				
Hardness	ISO 868 : 2003	Shore D1	47	
Coefficient of thermal expansion (CTE) (+25° to +70°C)	ISO 11359 : 1999	10 <sup>-6</sup> .K <sup>-1</sup>	75	
Glass temperature transition	ISO 11359 : 2002	°C	70	
Compressive yield strength	ISO 604 : 2002	MPa	28	

<sup>&</sup>lt;sup>I</sup> Average values obtained on slabs

#### ► ASSEMBLY / FINISH

Polyurethane boards can be bonded with SK2TM75-5. Small surfaces bonding and finishing: SK2TM75-6.



SK2TM60-1

### Polyurethane board for master models

#### SAFETY PRECAUTIONS

Normal health and safety precautions should be observed when handling this product:

- ensure good ventilation
- wear gloves and safety glasses
- do not smoke when machining

For further information, please consult the product safety data sheet.

MACHINING PARAMETERS <sup>2</sup>			
	Cut speed (Cs in m/min)	Speed per rotation for 1 tooth (mm/tr)	
Rough shape	100 at 500	0.15 at 0.90	
Finish	400 at 800	0.07 at 0.10	

<sup>&</sup>lt;sup>2</sup> Parameters defined with tools with angle of cutting and angle of taper higher than zero.

#### DIMENSIONS

Unit	Length	Width	Thickness
	1500mm	500mm	50mm
SK2TM60-1	1500mm	500mm	75mm
	1500mm	500mm	100mm

#### **▶ STORAGE**

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



SK2TM60-1

Polyurethane board for master models

#### **► GUARANTEE**



SK2TM60-2

### Adhesive foam for bonding of boards SK2TM60-1

Back to range

#### DESCRIPTION

SK2TM60-2 – is one component polyurethane adhesive foam for bonding of foam master models boards SK2TM60-1.

#### **▶ PROPERTIES**

- Easy process
- No mixing
- Low consumption
- · Low clamping pressure on the assembly
- Fast curing
- Same milling behavior as SK2TM60-1

PHYSICAL PROPERTIES			
Consumption- one side application	120 – 150 g/m²		
Aspect	liquid		
Viscosity à 25°C	6500 mPa.s		
Specific Gravity	1.15		
Colour	dark amber		
Minimum clamping pressure	1 MPa		
Maximum open time before assembling	1h		
Hardening time before milling	2h		
Maximum thickness	<1mm		



SK2TM60-2

#### Adhesive foam for bonding of boards SK2TM60-1

#### ▶ PROCESSING

- One-side application with flexible spatula.
- Opposite side has to be moistened with water spray.
- Apply slight clamping pressure to the assembly.
- Wait 2 hours before handling or milling operation.
- The glue keeps its adhesive properties up to 120°C. For applications requiring heat resistance, please refer to the resistance of the selected board.

#### HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- ensure good ventilation
- wear gloves, glasses and protective clothes.

For further information, please consult the product safety data sheet.

#### STORAGE CONDITIONS

Shelf life is 9 months in a dry place and in their original unopened containers at a temperature between 15 to 25°C.

Any open must be tightly closed under dry inert gas (dry air, nitrogen, etc.).

#### PACKAGING

PACKAGING
6 x 1 Kg

#### **►** GUARANTEE



SK2TM75-4

#### Polyurethane board for master models

Back to range

#### **▶** DESCRIPTION

SK2TM75-4 - is a polyurethane board designed for production of patterns, mock-ups, prototypes and masters by milling or machining by hand.

#### **▶ PROPERTIES**

- Non porous material
- Excellent surface aspect (direct paint after sanding)
- Very good dimensional stability
- Machining by hand or by machine with wood cutting tools or aluminium cutting tools.



PHYSICAL PROPERTIES				
Colour brown				
Density at 23°C	ISO 2781 : 1996	0,65		

MECHANICAL AND HEAT PROPERTIES AT 23°C				
Hardness	ISO 868 : 2003	Shore D1	63	
Flexural modulus	ISO 178 : 2001	MPa	1,000	
Flexural strength	ISO 178 : 2001	MPa	34	
Compressive strength	ISO 604 : 2002	MPa	28	
Impact strength (CHARPY)	ISO 179/1eU : 2002	kJ/m²	11	
Glass temperature transition (Tg)	ISO 11359 : 2002	°C	85	
Coefficient of thermal expansion (CTE) (+10 to +60°C)	ISO 11359 : 1999	10 <sup>-6</sup> .K <sup>-1</sup>	75	



SK2TM75-4

### Polyurethane board for master models

#### ASSEMBLY / FINISH

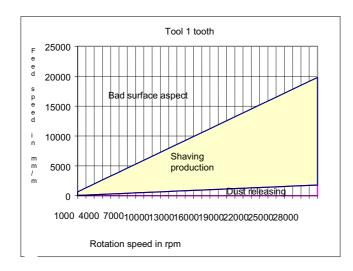
Polyurethane boards can be bonded with SK2TM75-5. Small surfaces bonding and finishing SK2TM75-6.

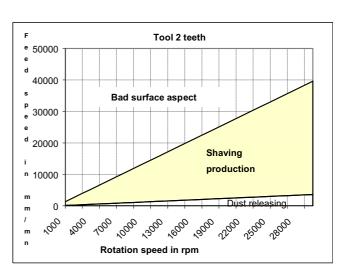
#### HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling this product:

- ensure good ventilation
- wear gloves and safety glasses
- do not smoke when machining.

For further information, please consult the product safety data sheet.





MACHINING PARAMETERS				
Cut speed (Vc in m/min)  Feed per tooth (fz mm/revolution)				
Rough shape	100 to 500	0,15 to 0,70		
Finish	400 to 800	0,07 to 0,10		

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 303 of 460



SK2TM75-4

### Polyurethane board for master models

n = ( 1000 X Vc ) / ( PI X Dc )	Vf = n X fz X Z

- Vc: Cutting speed in m/min
- Dc: Cutting diameter in mm
- n: Spindle speed in revolution/min
- fz: Feed per tooth in mm/revolution
- Z: Number of teeth
- Vf: Feed speed in mm/min

#### **DIMENSIONS**

Unit	Length	Width	Thickness
	850mm	500mm	30mm
SK2TM75-4	1500mm	500mm	75mm
	1500mm	500mm	150mm
	1500mm	500mm	50mm
	1500mm	500mm	100mm
	1500mm	500mm	200mm

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

#### **► GUARANTEE**

SK2TM75-5

#### **Epoxy adhesive for bonding**

Back to range

#### DESCRIPTION

SK2TM75-5 is a two component thixotropic epoxy glue paste for bonding of polyurethane plates SK2TM75-4. Paste has practically an identical hardness with the plate SK2TM75-4, facilitating machining and polishing.

PHYSICAL PROPERTIES						
	Resin	Hardener	Mixing			
Mix ratio by weight	100	50				
Aspect	thick-flowing liquid	paste	viscous liquid			
Color	brown beige		light brown			
Specific gravity at 25°C	1,60	0,68	1,12			
Pot-life (200g) at 25°C (min)			20			
Final hardness	ISO 868 : 2003	D Shore	65/70			
Adhesive tack time before assembly		min	30			
Hardening time before machining		h	5			

#### **▶** REMARKS

It is necessary to degrease, remove dust from both faces of the pieces to be bonded to obtain an adequate bonding. It is recommended to apply a slight pressure.

Consumption: 750 to 850 g/m<sup>2</sup>

#### **► HANDLING PRECAUTIONS**

Normal health and safety precautions should be observed when handling these products:



SK2TM75-5

**Epoxy adhesive for bonding** 

- ensure good ventilation
- wear gloves and safety glasses

For further information, please consult the product safety data sheet.

#### **▶ STORAGE**

Shelf life is 12 months for resin and 6 months for hardener component. It is recommended to store in a dry place avoiding humidity at temperature from +15°C until +25°C in the original packing.

#### **▶ PACKAGING**

RESIN	HARDENER
Box of 4 x 0,5 kg	Box of 4 x 0,25 kg

#### **▶** GUARANTEE

# S T E V

### TECHNICAL DATA SHEET

SK2TM90-1

#### Polyurethane machinable slab

Back to range

#### DESCRIPTION

SK2TM90-1 – machinable slab designed for hi-tech foundry tools, checking fixtures for non abrasive materials, production of models for composites moulds lay up or vacuum bagging process.

#### **▶ PROPERTIES**

- Low density
- Excellent surface aspect (direct paint after sanding if needed)
- Very good dimensional stability

PHYSICAL PROPERTIES					
Colour Light Blue					
Specific gravity of cured product at 23°C	ISO 2781 : 1996	0,78			

PHYSICAL PROPERTIES AT 23°C					
Hardness	ISO 868 : 2003	Shore D1	73		
Flexural modulus	ISO 178 : 2001	MPa	2100		
Flexural strength	ISO 178 : 2001	MPa	43		
Compressive strength	ISO 604 : 2002	MPa	54		
Impact strength (CHARPY)	ISO 179/1eU : 1994	kJ/m²	6		
Glass temperature transition (Tg)	ISO 11359 : 2002	°C	85		
Coefficient of thermal expansion (CTE) (+10 to +60°C)	ISO 11359 : 1999	10 <sup>-6</sup> .K <sup>-1</sup>	50		

#### **► ASSEMBLY**

The tooling board SK2TM90-1 can be bonded with SK2TM75-5 or SK2TM80-25 when the temperature does not exceed 50°C.

For temperature resistance up to the Tg, please use SK2TM125-2.



#### SK2TM80-1

# Polyurethane abrasion resistant machinable board

Back to range

#### DESCRIPTION

SK2TM80-1 – polyurethane abrasion resistant machinable board intended for models of foundry, core and any other tools machined in CNC machines.

#### **▶ PROPERTIES**

- Outstanding impact resistance
- Easy machining
- Good abrasion resistance
- Very good surface aspect after machining



PHYSICAL PROPERTIES				
Colour Green				
Density at 23°C	ISO 2781 : 1996	1,30		

MECHANICAL AND THERMAL PROPERTIES AT 23°C					
Hardness	ISO 868 : 2003	Shore D1	85		
Abrasion loss	ISO 5470-1 :1999	mm <sup>3</sup>	160		
Compressive strength at yield	ISO 604 :2002	MPa	68		
Flexural strength	ISO 178 : 2001	MPa	75		
Flexural modulus	ISO 178 : 2001	MPa	1.900		
Tensile strength	ISO 527 :1993	MPa	46		
Elongation at break	ISO 527 :1993	MPa	8,5		
Impact resistance (CHARPY) (ISO 179/1eU unnotched specimens)	ISO 179/1eU : 2002	kJ/m₂	30		
Temperature of glass transition (Tg)	ISO 11359 : 2002	°C	90		



SK2TM80-1

#### Abrasion resistant machinable board

Coefficient	of	thermal	expansion	ISO 11359 : 1999	10 <sup>-6</sup> .K <sup>-1</sup>	85
(CTE)		(+10 to +6	60°C)	100 11000 . 1000	10 .10	0.5

#### **► ASSEMBLY**

The boards SK2TM80-1 can be bonded with epoxy adhesive SK2TM80-2 or (long pot life – epoxy adhesive), consumption about 400 g/cm<sup>2</sup>.

MACHINING PARAMETERS				
	Cut speed (Cs in m/min)	Speed per rotation for 1 tooth (mm/tr)		
Rough shape	100 to 400	0,30		
Finish	400	0,06		

NOTE: To obtain good results use tools with an angle of cutting and angle of taper higher than zero.

#### ► HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling this product:

- ensure good ventilation
- · wear gloves and safety glasses
- do not smoke when machining.

For further information, please consult the product safety data sheet.

#### **▶ STORAGE**

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.



SK2TM80-1

Abrasion resistant machinable board

#### **DIMENSIONS**

Unit	Length	Width	Thickness
	1000mm	500mm	50mm
SK2TM80-1	1000mm	500mm	75mm
	1000mm	500mm	100mm

Please contact us for other dimensions.

#### **►** GUARANTEE



SK2TM80-2

#### **Epoxy adhesive for bonding of PU boards**

► DESCRIPTION Back to range

SK2TM80-2 is a two-component non-filled epoxy adhesive whose properties make it the ideal product for bonding high dimension surfaces having high levels of mechanical and ageing resistance.

#### APPLICATION

Bonding of panels: honeycomb, aluminium sheet, steel sheet, composite materials, wood, thermoplastics, foam, etc.

PHYSICAL PROPERTIES				
	Resin	Hardener	Mixing	
Mix ratio by weight	100	62		
Mix ratio by volume	100	73		
Colour	light amber	translucent red	pink	
Specific gravity at 25°C	1.16	0.98	1.08	
Brookfield viscosity at 25°C (mPa.s)	10,000	8,000	9,000	
Pot life (50g) at 25°C (min)	Gel timer		50	



SK2TM80-2

#### **Epoxy adhesive for bonding of PU boards**

MECHANICAL PROPERTIES ON ASSEMBLIES				
Time to obtain 1 Mpa lap shear strength at 25°C	ISO 4587 : 95	h	6	
Time to obtain 50% final lap shear strength at 25°C	ISO 4578 : 90	h	12	
Lap shear strength on aluminium (1)	ISO 4587 : 95	MPa	29 AF <sup>(2)</sup>	
Floating roller peel resistance (1)	ISO 4578 : 90	kN/m	4 AF <sup>(2)</sup>	

Lap shear strength (LSS) on aluminium 2017A sand blasted.

#### ► HANDLING PRECAUTIONS

It is recommended to use the product at a temperature between +18°C and +35°C. Normal health and safety precautions should be observed when handling these products:

- ensure good ventilation,
- wear gloves and safety glasses,
- wear waterproof clothes.

For further information, please consult the product safety data sheet.

MECHANICAL PROPERTIES ON ASSEMBLIES				
Lap shear strength after moist cataplasm 15 days at 80°C	ISO 4587 : 95	MPa	27 AF (2)	
Lap shear strength after ageing by shock thermic 15 cycles D3 (see annex)	ISO 4587 : 95	MPa	29 AF (2)	
Lap shear strength after ageing by immersion for 3 weeks:  • motor oil at 70°C  • chlorhydric acid ( 0.1N) at 23°C  • soda (0.1N) at 23°C  • sea water at 23°C  • gazole at 23°C  • oil at 23°C	ISO 4587 : 95 ISO 175 : 99	MPa	29 AF (2) 28 AF (2) 29 AF (2) 29 AF (2) 28 AF (2) 28 AF (2)	

<sup>(1)</sup> Hardening conditions: 8 hours at 80°C + 48 hours at room temperature.

<sup>(2)</sup> According to ISO 10365:1992: AF = Adhesive Failure



SK2TM80-2

#### **Epoxy adhesive for bonding of PU boards**

Lap shear strength after thermic ageing for 3 weeks at 100°C	ISO 4587 : 95	MPa	28 AF <sup>(2)</sup>
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THERMAL AND MECHANICAL PROPERTIES				
Hardness	ISO 868 : 85	Shore D1 / D15	75/73	
Tensile strength	ISO 527 : 96	MPa	30	
Elongation at break	ISO 527 : 96	%	10	
Glass transition temperature	TMA-METTLER	°C	60	
Thermal coefficient of expansion (CTE) [-30; +50]°C	TMA-METTLER	10 <sup>-6</sup> K <sup>-1</sup>	70	
Working temperature	-	°C	-40 ; +100	

#### SUBSTRATE PREPARATION

The item to be bonded must be free of all dirt, oil or other foreign matter. A clean, dry surface is a must. Please, refer to the technical data sheet about surface preparations to choose adapted degreaser or cleaner.

#### PACKAGING

RESIN	HARDENER
6 x 0.5 kg	6 x 0.31 kg
5 kg	3.1 kg
25 kg	15.5 kg

#### ▶ STORAGE

Shelf life of the SK2TM80-2 is 18 months stored in its original unopened packing at a temperature between +15°C and +25°C.



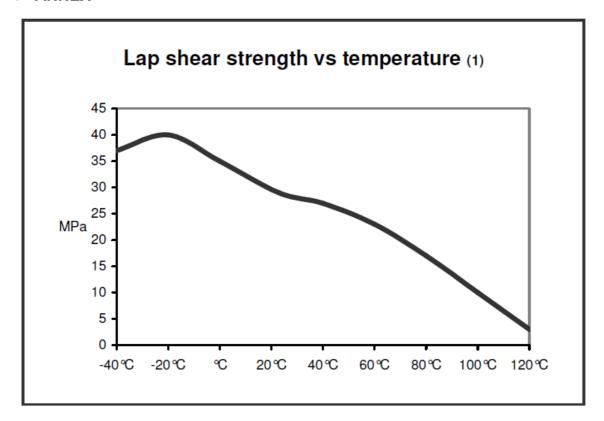
SK2TM80-2

**Epoxy adhesive for bonding of PU boards** 

#### **▶** GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of the products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident, which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.

#### ► ANNEX



(1) Hardening conditions: 8 hours at 80°C + 48 hours at room temperature

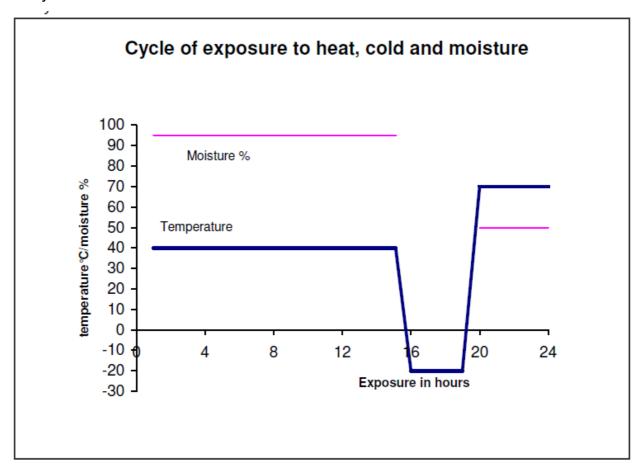


SK2TM80-2

**Epoxy adhesive for bonding of PU boards** 

#### THERMAL SHOCK TEST ACCORDING TO ISO 9142-93 NORM

D3 cycle





SK2TM80-3

Hard epoxy surface coat for board SK2TM125-1

Back to range

#### DESCRIPTION

SK2TM80-3 is two component epoxy paint, used to give a high gloss finish to epoxy tooling block. It is an essential element of a successful composite tooling package, and has been developed to provide the best interface between SK2TM125-1 epoxy tooling block and epoxy tooling prepregs.

#### **▶ TECHNICAL CHARACTERISTICS**

- Easily applied to the tooling block
- To be sanded (after thermal treatment)
- Spray gun or brush application
- High gloss finish
- · High hardness

#### MIX RATIO

Mix ratio by volume: 1 volume part A Mix ratio by weight: 100 part A 1 volume part B 80 part B

#### SURFACE PREPARATION

- The tooling block surface to be coated must be clean and dry, with all traces of oil and grease removed with the supplied solvent.
- On some absorbent surfaces, like wood, apply a layer of the epoxy paint SK2TM80-3, and cure for a night, then sand it slightly before applying the additional layers.
- Some boards would need a thin layer of epoxy primer on porous surface

#### SPRAY GUN APPLICATION

- Whatever the surface, it is recommended to apply the first layer with a chiffon by wetting the surface and by removing the excess.
- Method 1: Apply 3 to 4 light coats, allowing a minimum 5 minutes between each coat, ensuring that the final coat has wet out the surface fully, thus ensuring the highest quality gloss finish. Let dry at room temperature for a minimum of 2 hours before curing.
- Method 2: Apply 2 to 3 coats with the spray gun (same process as method 1), let dry for 2 hours minimum before curing. Proceed to the thermal treatment: Sand with an abrasive paper (e.g. P 600), clean then apply the top coat, let dry and cure.



SK2TM80-3

Hard epoxy surface coat for board SK2TM125-1

#### BRUSH APPLICATION

- Always use a good quality brush in order to prevent from having dust marks when the paint is dry.
- Apply 4 to 6 coats, allowing 20 to 30 minutes between layers according to the temperature.
- For best results, let dry for a minimum of 4 hours before curing.

#### **▶** POSTCURE

After allowing the paint to dry (depending of the process used) for a minimum of 2 to 4 hours at room temperature the paint should be postcured in an oven to increase the hardness. A postcure of 4 hours at 60°C is recommended, if the master cannot withstand 60°, then cure for 12 hours at 45°C.

In these conditions, the epoxy surface coat SK2TM80-3 can withstand a 80°C final temperature.

#### FINAL PREPARATION

The epoxy surface coat SK2TM80-3 can be easily sanded smooth to remove any surface blemishes or dust marks using fine wet and dry abrasive paper (P 1200). To achieve the best gloss surface finish, automotive type rubbing/polishing compounds can be used. Once the master model has been polished, wipe the surface with a suitable solvent to remove any final traces of polishing compound. Acetone is ideal if only postcuring has been carried out.

#### **► STORAGE**

Shelf life is 6 months in a dry place and in original unopened containers at a temperature between 15°C and 25°C. When stored several months blend each part before mixing.

#### **PACKAGING**

The kit allows to paint from 5 to 10 m<sup>2</sup> (according to the shape complexity).

RESIN	HARDENER
1 litre	1 litre



SK2TM80-3

Hard epoxy surface coat for board SK2TM125-1

#### **▶** GUARANTEE

SK2TM90-2

#### Polyurethane board for master models

Back to range

#### DESCRIPTION

SK2TM90-2 is a polyurethane board designed for production of reference models, patterns, master models, moulds for low pressure reaction injection moulding and vacuum forming moulds for lower number of pieces.

This product is used in various manufacturing processes of parts made of composite materials.

#### PRODUCT BENEFITS

- Very high dimensional stability
- High compressive strength and edge stability
- Good solvent resistance
- High heat distortion temperature
- Easy machinability
- Low dust formation when milled
- Very dense, fine surface
- Easy to seal and good to varnish

#### **▶ TECHNICAL DATA**

PHYSICAL PROPERTIES			
Basis	-	Polyurethane	
Color	-	Braun	
Density	ISO 845	0,7 г/см <sup>3</sup>	
Shore hardness	ISO 868	66	
Flexural strength	ISO 178	26 MPa	
Compressive strength	ISO 604	25 MPa <sup>*</sup>	
Impact resistance	ISO 179	7 kJ/m²	



SK2TM90-2

### Polyurethane board for master models

Heat distortion temperature	ISO 75 B	90°C
Coefficient of thermal expansion (CTE), $\alpha_{\text{T}}$	DIN 53 752	55 x 10 <sup>-6</sup>

<sup>\*</sup> at 10% compressive strain

#### ► ASSEMBLY / FINIH

Polyurethane boards SK2TM90- 6 can be bonded with adhesive SK2TM80-7 and filler SK2TM80-8.

MACHINING PARAMETERS				
Adhesive/Filler	SK2TM80-7	SK2TM80-8		
Mixing ratio in parts by weight (A:B)	100 : 65	100 : 2		
Potlife	20 min	5 min		
Setting time	8-10	>20 min		

#### ▶ PROCESSING

- The material must be acclimatised to 18 25°C prior to machining.
- Machining of the block is easily accomplished by sawing, milling and so on with high performance tools or by hand.
- Bonding areas must be clean, dry and free of dust and grease or oil. For bondings use adhesive SK2TM80-7 (for more information see Product Data Sheet).
- For correction or finishing of surface use SK2TM80-8

#### SAFETY PRECAUTIONS

For further information about the safe handling, storage and disposal of chemical products please consult the product safety data sheet

#### **▶ RECYCLING**



SK2TM90-2

#### Polyurethane board for master models

Product Recommendations: Must be disposed of in a special waste disposal unit in accordance with the corresponding regulations.

Packaging Recommendations: Completely emptied packagings can be given for recycling. Packaging that cannot be cleaned should be disposed of as product waste.

#### **▶ STORAGE**

Storage conditions: it is recommended to store in a dry place at temperatures between +2°C and +40°C in original packing. Product has un-limited shelf life when stored with the respect to the storage conditions. During storage and transport of nished tools and models temperature variations should be kept as moderate as could be.

#### PACKAGING

Reference	Length	Width	Thickness	Number of plates / pallet
SK2TM90-2BR305001500	1500mm	500mm	30mm	30
SK2TM90-2BR505001500	1500mm	500mm	50mm	36
SK2TM90-2BR755001500	1500mm	500mm	75mm	24
SK2TM90-2BR1005001500	1500mm	500mm	100mm	18
SK2TM90-2BR1505001500	1500mm	500mm	150mm	12

Please contact us for other dimensions

#### **► GUARANTEE**

# S T E V

### **TECHNICAL DATA SHEET**

SK2TM92-1

#### Model boards with metal filler

Back to range

#### **▶** DESCRIPTION

SK2TM92-1 board can be used for manufacturing stamping tools, checking fixtures and hammer forming tools.

Product contains aluminium filler in order to increase thermal conductivity. Thermal Conductivity value: 0.9 W/m·K.

#### **▶ PROPERTIES**

- Easy machining
- Excellent surface aspect after machining
- Produces shaving and little dust when worked
- Low coefficient of friction allowing sheet metal and flow on the tool
- Good dimensional stability
- High compressive strength

PHYSICAL PROPERTIES				
Colour - Grey				
Density at 23°C	ISO 2781 : 1996	1,67		

MECHANICAL AND HEAT PROPERTIES AT 23°C					
Hardness	ISO 868 : 2003	Shore D1 / D15	89/88		
Flexural modulus	ISO 178 : 2001	MPa	5,800		
Flexural strength	ISO 178 : 2001	MPa	90		
Compressive strength	ISO 604 :2002	MPa	110		
Impact strength (CHARPY) Unnotched specimens	ISO 179/1eU :1994	kJ/m2	12		
Glass temperature transition (Tg)	ISO 11359 : 2002	°C	92		
Coefficient of thermal expansion (CTE) (+10 to +60°C)	ISO 11359 : 1999	10 <sup>-6</sup> .K <sup>-1</sup>	50		

# S T E V

### TECHNICAL DATA SHEET

SK2TM92-1

Model plates with metal filler

#### ► ASSEMBLY / FINIH

Tooling boards SK2TM92-1 can be bonded with SK2TM80-2 epoxy adhesive long pot life (consumption about 400g/m2).

#### SAFETY PRECAUTIONS

Normal health and safety precautions should be observed when handling this product:

- ensure good ventilation
- wear gloves and safety glasses
- do not smoke when machining

For further information, please consult the product safety data sheet.

MACHINING PARAMETERS				
	Cut speed (Vs in m/min)	Feed per tooth (fz in mm/revolution)		
Rough shape	100	0,35		
Finish	400	0,06		

n = ( 1000 X Vc ) / ( PI X Dc )	Vf = n X fz X Z
---------------------------------	-----------------

- Vc: Cutting speed in m/min
- Dc: Cutting diameter in mm
- n: Spindle speed in revolution/min
- fz: Feed per tooth in mm/revolution
- Z: Number of teeth
- Vf: Feed speed in mm/min

#### STORAGE

Storage conditions: it is recommended to store in a dry place at temperatures between - 20°C and +30°C in original packing, protected from direct sun and heat source



SK2TM92-1

Model plates with metal filler

#### **PACKAGING**

Packing	Length	Width	Thickness
SK2TM92-1	830mm	500mm	50mm
	830mm	500mm	75mm
	830mm	500mm	100mm

Please contact us for other dimensions

#### **▶** GUARANTEE

## **TECHNICAL DATA SHEET**

SK2TM80-2

### Epoxy adhesive for bonding of epoxy board SK2TM80-1

Back to range

#### DESCRIPTION

SK2TM80-2 is a two-component non-filled epoxy adhesive whose properties make it the ideal product for bonding high dimension surfaces having high levels of mechanical and ageing resistance.

#### **▶** APPLICATION

Bonding of panels: honeycomb, aluminium sheet, steel sheet, composite materials, wood, thermoplastics, foam, etc.

PHYSICAL PROPERTIES					
	Resin	Hardener	Mixing		
Mix ratio by weight	100	62			
Mix ratio by volume	100	73			
Colour	light amber	translucent red	pink		
Specific gravity at 25°C	1.16	0.98	1.08		
Brookfield viscosity at 25°C (mPa.s)	10,000	8,000	9,000		
Pot life (50g) at 25°C (min)	Gel timer		50		



SK2TM80-2

### Epoxy adhesive for bonding of epoxy board SK2TM80-1

MECHANICAL PROPERTIES ON ASSEMBLIES						
Time to obtain 1 Mpa lap shear strength at 25°C	ISO 4587 : 95	h	6			
Time to obtain 50% final lap shear strength at 25°C	ISO 4578 : 90	h	12			
Lap shear strength on aluminium (1)	ISO 4587 : 95	MPa	29 AF <sup>(2)</sup>			
Floating roller peel resistance (1)	ISO 4578 : 90	kN/m	4 AF <sup>(2)</sup>			

Lap shear strength (LSS) on aluminium 2017A sand blasted.

- (1) Hardening conditions: 8 hours at 80°C + 48 hours at room temperature.
- (2) According to ISO 10365:1992: AF = Adhesive Failure.

#### HANDLING PRECAUTIONS

It is recommended to use the product at a temperature between +18°C and +35°C. Normal health and safety precautions should be observed when handling these products:

- · ensure good ventilation,
- · wear gloves and safety glasses,
- wear waterproof clothes.

For further information, please consult the product safety data sheet.

MECHANICAL PROPERTIES ON ASSEMBLIES						
Lap shear strength after moist cataplasm 15 days at 80°C	ISO 4587 : 95	MPa	27 AF <sup>(2)</sup>			
Lap shear strength after ageing by shock thermic 15 cycles D3 (see annex)	ISO 4587 : 95	MPa	29 AF <sup>(2)</sup>			
Lap shear strength after ageing by immersion for 3 weeks:  • motor oil at 70°C  • chlorhydric acid ( 0.1N) at 23°C  • soda (0.1N) at 23°C  • sea water at 23°C  • gazole at 23°C  • oil at 23°C	ISO 4587 : 95 ISO 175 : 99	MPa	29 AF <sup>(2)</sup> 28 AF <sup>(2)</sup> 29 AF <sup>(2)</sup> 29 AF <sup>(2)</sup> 28 AF <sup>(2)</sup> 28 AF <sup>(2)</sup>			
Lap shear strength after thermic ageing for 3 weeks at 100°C	ISO 4587 : 95	MPa	28 AF <sup>(2)</sup>			



SK2TM80-2

Epoxy adhesive for bonding of epoxy board SK2TM80-1

THERMAL AND MECHANICAL PROPERTIES						
Hardness	ISO 868 : 85	Shore D1 / D15	75/73			
Tensile strength	ISO 527 : 96	MPa	30			
Elongation at break	ISO 527 : 96	%	10			
Glass transition temperature	TMA-METTLER	°C	60			
Thermal coefficient of expansion (CTE) [-30; +50]°C	TMA-METTLER	10 <sup>-6</sup> K <sup>-1</sup>	70			
Working temperature	-	°C	-40 ; +100			

#### SUBSTRATE PREPARATION

The item to be bonded must be free of all dirt, oil or other foreign matter. A clean, dry surface is a must. Please, refer to the technical data sheet about surface preparations to choose adapted degreaser or cleaner.

#### PACKAGING

RESIN	HARDENER
6 x 0.5 kg	6 x 0.31 kg
5 kg	3.1 kg
25 kg	15.5 kg

#### **▶ STORAGE**

Shelf life of the SK2TM80-2 is 18 months stored in its original unopened packaging at a temperature between +15°C and +25°C.

### **TECHNICAL DATA SHEET**

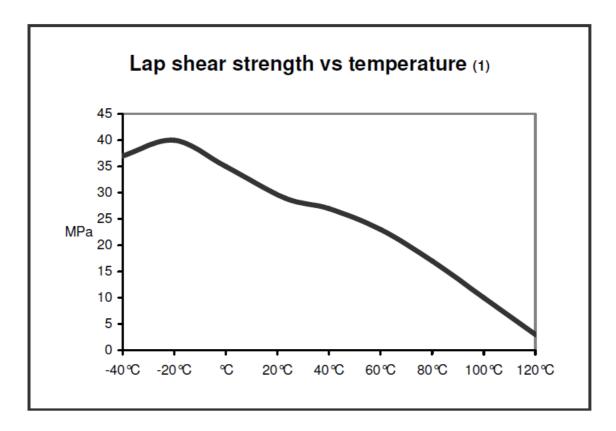
SK2TM80-2

Epoxy adhesive for bonding of epoxy board SK2TM80-1

#### GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of the products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident, which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.

#### ANNEX



(1) Hardening conditions: 8 hours at 80°C + 48 hours at room temperature

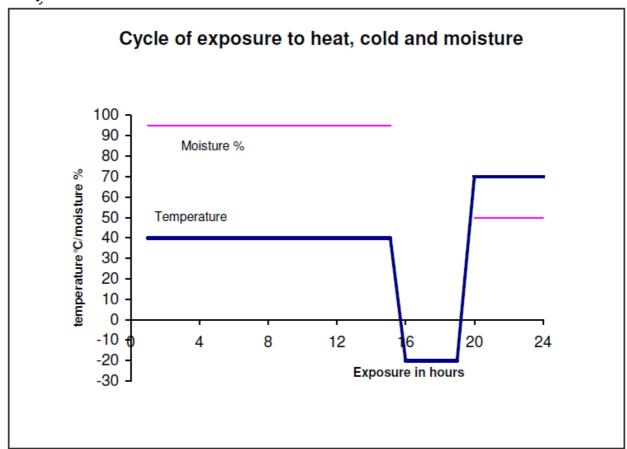


### SK2TM80-2

Epoxy adhesive for bonding of epoxy board SK2TM80-1

#### THERMAL SHOCK TEST ACCORDING TO ISO 9142-93 NORM

D3 cycle





SK2TM125-1

### **Epoxy tooling board for master-model**

Back to range

#### DESCRIPTION

SK2TM125-1 can be used as master models for epoxy prepregs or heat curing composite tools or parts, short run vacuum forming moulds.

#### **▶ PROPERTIES**

- High dimensional stability
- Easy machining
- Low specific gravity
- High temperature resistance

PHYSICAL PROPERTIES					
Composition	-	Ероху			
Colour	-	Blue			
Specific gravity at 23°C	ISO 2781 : 98	0.75			

MECHANICAL AND THERMAL PROPERTIES AT 23°C						
Hardness	ISO 868 : 85	Shore D1	73			
Flexural strength	ISO 178 : 93	MPa	30			
Flexural modulus	ISO 178 : 93	MPa	2,200			
Compressive strength	ISO 604 : 97	MPa	50			
Coefficient of linear thermal expansion (C <sub>L</sub> TE) (+10 to +100°C)	T.M.AMettler	10 <sup>-6</sup> .K <sup>-1</sup>	35-45			



SK2TM125-1

### **Epoxy tooling board for master-model**

Temperature	°C	23	80	100	120	130
Hardness Shore D à 1 s	ISO 868 : 85	73	71	69	66	63

Owing these results, SK2TM125-1 could be used until a temperature of 125° C for prepreg curing with 4 bars pressure in autoclave.

#### **► ASSEMBLY**

Tooling boards SK2TM125-1 can be bonded with SK2TM125-2 (consumption about 600 g/m2).

#### HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling this product:

- ensure good ventilation
- wear gloves and safety glasses
- do not smoke when machining.

For further information, please consult the product safety data sheet.

MACHINING PARAMETERS					
	Cutting speed (Cs in m/min)	Feed per tooth (mm/tr)			
Roughing cut ((1)	100 - 400	0,35			
Finishing cut (2)	400 - 800	0,05 - 0,15			

(1) Roughing cut: Cutting parameters are determined with a carbide inserts ball nose endmill:

Helix angle: 6°

• Clearance angle: 14°

(2) Finishing cut: Cutting parameters are determined with a 2 teeth ball nose endmill:

Helix angle: 30°

• Clearance angle: 14°

Surface painting is recommended SK2TM80-3



#### ▶ STORAGE

Storage conditions: it is recommended to store at temperatures between -20°C and +25°C in original packing.

#### **DIMENSIONS**

Unit	Length	Width	Thickness
SK2TM125-1	1500mm	500mm	50mm
	1500mm	500mm	100mm
	1500mm	500mm	75mm

Please contact us for other dimensions.

#### **▶** GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of the products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident, which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.

### S T E V I K

## TECHNICAL DATA SHEET

SK2TM125-2

### Adhesive for epoxy board SK2TM125-1 and SK2TM125-3

Back to range

#### DESCRIPTION

SK2TM125-2 is an adhesive designed for bonding machinable slabs.

PHYSICAL & THERMAL PROPERTIES						
Composition		Resin	Hardener	Mixing		
Mix ratio by weight		100	15			
Aspect		pasty	liquid	pasty		
Colour		blue	light amber	blue		
Specific gravity at 25°C Specific gravity of the cured product at 23°C	ISO 1675 : 1975 ISO 2781 :1988	0.78	1.07	0.80		
Pot life at 25°C on 115g (min.)	-			30		
Coefficient of linear expansion (CLTE) [0, +90]°C (1)	T.M.A - Mettler	10-6 K-1		45		

Temperature (°C)		23	80	100	120
Hardness (1) Shore D1 (1s)	SO 868 : 1985	75	69	68	65

(1) : Average values obtained on standard specimens / Hardening 24 hours at 23°C + 4 hours at 80°C + 4 hours at 120°C.

#### STORAGE

Shelf life for the resin is 12 months and 24 months for the hardener in a dry place and in original unopened containers at a temperature between 15 to 25°C.

#### HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:



SK2TM125-2

Adhesive for epoxy board SK2TM125-1 and SK2TM125-3

- ensure good ventilation
- wear gloves and safety glasses

For further information, please consult the product safety data sheet.

#### PACKAGING

RESIN	HARDENER
2*6 x 0.430 kg	12 x 0.065 kg

#### **▶** GUARANTEE

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## TECHNICAL DATA SHEET

SK2TM200-5

### High temperature board for model-master

Back to range

#### DESCRIPTION

This epoxy board was specially developed for high-temperature manufacturing of composite tooling as master-model, in cases if the post curing of composite tool has to be done on the model.

The possibility of the CNC machining, high strength, high quality of the board surface, and low coefficient of thermal expansion of this board is ideal for using as well as a tool in small serial production at the temperature up to 200°C.

The main application industries are aircraft, automotive, mechanical engineering. This product is used in various manufacturing processes of parts made of composite materials.

#### **Advantages**

- · High strength
- · Low density
- High temperature glass transition provides working temperature not less 200°C.
- Low coefficient of thermal expansion

#### **► TECHNICAL DATA**

Material type: Epoxy Color: Light yellow

Characteristic	Unit	Value
Glass transition temperature	Tg onset,°C Tg tan, °C	250 295
Compressive strength	by 20°C, MPa by 200°C, MPa	105 69
Flexural strength	by 20°C, MPa by 200 °C, MPa	65 55
Elasticity module	by 20°C, MPa by 200°C, MPa	2600 1700
Density	g/cm³	0,76
Coefficient of thermal expansion	x10-6 °C-1 by 125 °C, by 150 °C, by 175 °C, by 200 °C,	34,3 34,9 35,6 36,4



SK2TM200-5

### High temperature board for model-master

#### **► SIZE**

Thickness	Width	Length
50mm	500mm	1500mm
100mm	500mm	1500mm
150mm	500mm	1500mm

Shelf life: unlimited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

#### **► NOTE**

Please contact us for getting instructions for adjusting of CNC equipment for machining of board.



### SK2TM200-6

### Adhesive paste for bonding boards by prototype tooling

Back to range

#### DESCRIPTION

SK2TM200-6 is an epoxy modified two-components adhesive paste which was specially developed for bonding and repairing of high-temperature model boards.

#### **► ADVANTAGES**

Maximum working temperature >200°C

Pot life :10 hours at 20°C

Do not contain solvent

Low exothermal effect

#### **► TECHNICAL DATA**

Material type	Epoxy modified
	30:70 (A:B) 31:84 (A:B)
Aspect	Part A : Viscous yellow paste Part B : Yellow-brown paste
Pot life	10 hours (1000 g at 22 °C)
Viscosity	Part A : 80 Pa*s Part A : 1,5 Pa*s Adhesive (after mixing): > 500 Pa*s
Density	Part A:       0,96 g/cm³         Part B:       0,84 g/cm³         Adhesive (after mixing):       0,88 g/cm³
Shelf life	6 months at 22 °C
Curing behaviour	60 °C – 4 hours 100 °C – 1 hour 180 °C – 1 hour 220 °C – 2 hour
Glass Transition Temperature	Curing       Tg         180 °C – 1 hour       220 °C         220 °C – 2 hours       270 °C



SK2TM200-6

### Adhesive paste for bonding boards by prototype tooling

Coefficient of thermal expansion, x10 <sup>-6</sup> °C <sup>-1</sup>		
at 10	100 °C 42,6	
at 15	150 °C 44,3	
at 20	200 °C 46,4	
Shear strength	Destroying of modeling board material	

#### APPLICATION

All operations on components' mixing and bonding should be carried at 18-25°C and humidity not more than 60%.

Bonding surfaces should be thoroughly cleaned, roughened and degreased with solvent. Before application the adhesive parts should be carefully mixed with a glass or metallic spatula. Weight the necessary quantity of parts and then mix them in a metallic or polypropylene container during 5 minutes to ensure complete homogenization. The use of low-speed mechanical mixer (with the stirring rate not more than 100 rpm) is allowed.

Apply a thin layer of adhesive paste on surfaces meant to be bond using a spatula. Bond together the surfaces using a clamp. To get an adhesive binding of high quality it is recommended to use vacuum bagging while bonding.

#### PACKAGING

Packing	Minimum order quantity	Weight
SK2TM200-6	1	1 kg
SK2TM200-6	1	5 kg

Other packaging is available upon request.

Storage conditions: it is recommended to store at temperatures between +15°C and +25°C in original packing.



### SK2TM130-1A/SK2TM130-1B/SK2TM130-1BL

**Epoxy laminating system by infusion** 

Back to range

#### DESCRIPTION

The resin SK2TM130-1A mixed with the hardener SK2TM130-1B or SK2TM130-1BL allows the production of composite moulds and structures by infusion method.

### **► TECHNICAL DATA**

- High thermal resistance
- Good chemical resistance
- Excellent impregnation of fabrics

PHYSICAL PROPERTIES				
COMPOSITION		RESIN SK2TM130- 1A	HARDENER SK2TM130-1B	HARDENER SK2TM130- 1BL
Mix ratio by weight - by weight - by volume at 25°C		100 100	26 33	26 33
Aspect		Liquid	Liquid	Liquid
Colour		Light amber	Colourless	Amber
Viscosity at 25°C 0,9 s-1 (Pa.s) Viscosity of mixing	BROOKFIELD LVT	1,300	16 350	50 550
Specific gravity at 25 °C (g/cm³) Specific gravity of cured product at 23 °C	ISO 1675 : 1985 ISO 2781 : 1996	1.16 -	0.92 1.12	0.92 1.12
Pot life of 500g at 25°C (MIN)	Gel Timer TECAM		110	200



### SK2TM130-1A/SK2TM130-1B/SK2TM130-1BL

**Epoxy laminating system by infusion** 

MECHANICAL PROPERTIES AT 23 °C (1)				
			SK2TM130-1A/ SK2TM130-1B	SK2TM130-1A/ SK2TM130- 1BL
Hardness	ISO 868 : 2003	Shore D15	88	88
Tensile modulus	ISO 527 : 1993	MPa	3,600	3,700
Tensile strength	ISO 527 : 1999	MPa	80	70
Elongation at break	ISO 527 : 1993	%	6	4
Flexural modulus	ISO 178 : 2010	MPa	2,900	3,000
Flexural strength	ISO 178 : 2010	MPa	130	125

THERMAL AND SPECIFIC PROPERTIES (1)					
Glass transition temperature (Tg) 16 hours at 100°C 140 hours at 140 °C  ISO 11357- 2:1999  °C 120 138 145					
Coefficient of thermal expansion (CTE) (+30 °C ti +110°C)	ISO 11359- 2:1999	10 <sup>-6</sup> K <sup>-1</sup>	80	80	

(1) Average values obtained on standard specimens / Hardening 16h at room temperature +12h at 50°C + 16h at 100°C

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 340 of 460

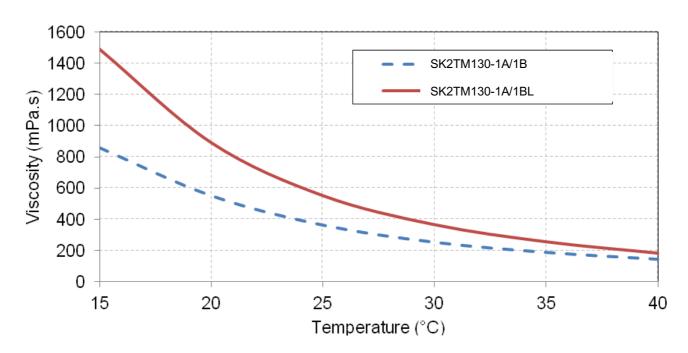


### SK2TM130-1A/SK2TM130-1B/SK2TM130-1BL

**Epoxy laminating system by infusion** 

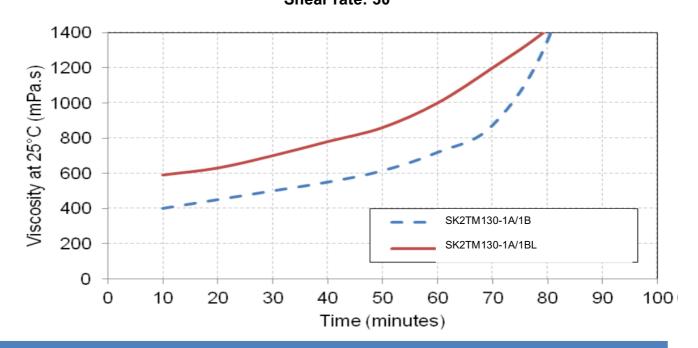
### Mixing viscosity vs temperature

Pheometer CVO 100 Malvern Cone – Plate 4°/40mm Shear rate: 30 s<sup>-1</sup>



#### Mixing viscosity vs time at 25°C

Quantity of mixing: 500g
Pheometer CVO 100 Malvern
Plate- Plate 25mm
Shear rate: 30 s-1



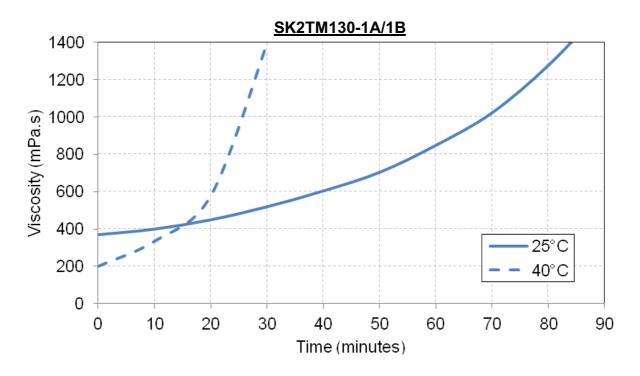


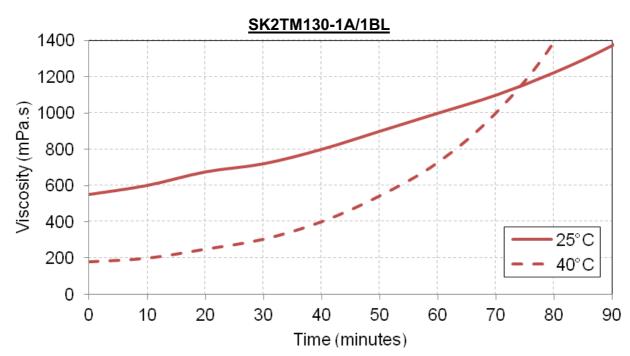
### SK2TM130-1A/SK2TM130-1B/SK2TM130-1BL

**Epoxy laminating system by infusion** 

### Mixing viscosity vs time on thin layer

Thickness: 0,5mm Pheometer CVO 100 Malvern Plate - Plate 25мм Shear rate: 30 s-1







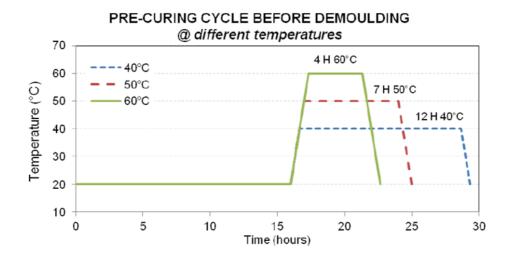
### SK2TM130-1A/SK2TM130-1B/SK2TM130-1BL

**Epoxy laminating system by infusion** 

#### **▶ PROCESSING CONDITIONS**

After mixing according to the indicated ratio impregnate the fiber reinforcement and apply curing cycles.

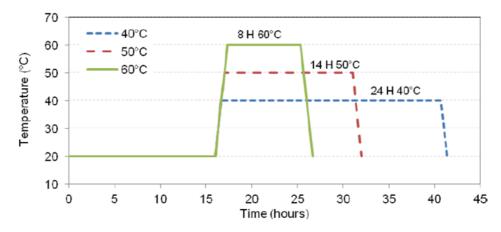
#### SK2TM130-1A/1B



#### SK2TM130-1A/1BL

Pre-curing cycle before demoulding

@different temperatures



It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

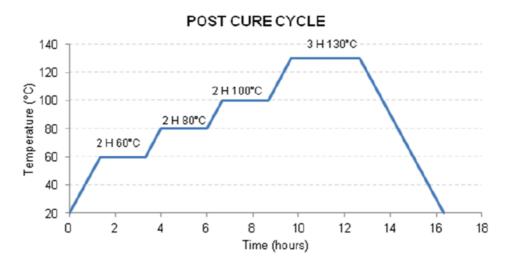
Page 343 of 460

## **TECHNICAL DATA SHEET**

### SK2TM130-1A/SK2TM130-1B/SK2TM130-1BL

**Epoxy laminating system by infusion** 

#### SK2TM130-1A/1B и SK2TM130-1A/1BL



Please respect for each cycle an increase and a decrease in temperature of 30°C per hour between stages.

#### HANDLING PRECAUTIONS

Normal health and security precautions should be observed when handling these products:

- Ensure good ventilation
- Wear gloves and safety glasses

For further information, please consult the material safety data sheets.

#### STORAGE CONDITIONS

Shelf life of both parts in 24 months in a dry place in their original unopened containers at a temperature between 15 and 25°C.

Any open can must be tightly closed under dry nitrogen.

#### УПАКОВКА

RESIN SK2TM130-1A	HARDENER SK2TM130-1B	HARDENER SK2TM130-1BL
22,0 kg 210 kg 1,100 kg	5,75 kg 18,2 kg 180 kg 900 kg	18,2 kg 180 kg 900 kg

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 344 of 460



### SK2TM130-1A/SK2TM130-1B/SK2TM130-1BL

**Epoxy laminating system by infusion** 

#### **►** GUARANTEE

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### TECHNICAL DATA SHEET

SK2TM170-1

**Epoxy resin system for infusion** 

Back to range

#### **▶** DESCRIPTION

SK2TM170-1 is a two components epoxy resin system designed for the hand lay-up process and injection processes and is especially for applications when a very high thermal resistance is needed. This product can be used in many areas including high temperature composite mould making and in general industrial composites. SK2TM170-1 has an optimized viscosity designed for with good impregnation and non-draining properties. Glass transition temperatures up to 175°C can be achieved depending on curing conditions.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Epoxy

PHYSICAL PROPERTIES			
Composition	Part A	Part B1	Part B2
Mix ratio by weight	100	17	19
Mix ratio by volume	100	21	23.5
Colour	translucent	colourless to brownish	colourless to brownish
Viscosity at 25°C (mPa.s)	~ 6,000	~ 10	~ 10
Mixed viscosity, 25°C, approx. values (mPa.s)	-	800	800
Density at 25 °C (g/ml)	1.16	0.94	0.94
Density of cured product (ISO 1183, g/cm³)	-	1.17	1.17
Potlife, 100 g / RT, approx. values, min	-	110	220

MECHANICAL PROPERTIES after 8 h / 160°C			
Tensile E-Modulus ISO 527	MPa	2,900	2,750
Tensile strength ISO 527	MPa	70	76
Elongation at break ISO 527	%	3.0	3.9
Flexural E-Modulus ISO 178	MPa	2,900	2,950



Flexural strength ISO 178	MPa	140	130
Compressive strength ISO 604	MPa	1.17	1.17
Impact resistance ISO 179	kJ/m²	28	26

THERMAL PROPERTIES after 8 h / 160°C			
Glass transition temperature ISO 11357	°C	170	174
Heat distortion temperature ISO 75A ISO 75B	°C °C	162 168	165 170

#### **►** SIZE

Packing	Part A	Part B1	Part B2
Kit (Part A + Part B1 or Part B2)	10 kg	1.7 kg	1.9 kg
		16 kg	
		180kg	

#### STORAGE

Both parts have to be stored safe from moisture and in their unopened container of origin. Containers must be closed tightly immediately after use. The residual material needs to be used up as soon as possible. After prolonged storage at low temperature, crystallisation of resin (Part A) may occur. This is easily removed by warming up for a sufficient time at a minimum of 60°C. When stored in original unopened containers:

Shelf life for Part A 24 months at T°C between 18°C and 25°C Shelf life for Part B1 and B212 months at T°C between 18°C and 25°C

#### ▶ PROCESSING

The material and processing temperatures should be in the range 18 - 35°C. The mixing ratio must be followed accurately to obtain best results. Deviating from the correct mix ratio will lead to lower performance. The final mechanical and thermal values are dependent on the applied postcuring cycles. It is recommended to clean brushes or tools immediately after use.



SK2TM180-1

**Epoxy gel coat** 

Back to range

#### **▶ DESCRIPTION**

SK2TM180-1 is a two components epoxy gel coat designed for production of moulds for prepreg, RTM, SMC, thermoforming. SK2TM180-1 has a high thermal resistance and can be polished, the product is chemically resistant.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Material type: Epoxy

PHYSICAL PROPERTIES			
Composition	Part A	Part B	Mixing
Mix ratio by weight	100	13	-
Aspect	thick liquid	liquid	thick liquid
Colour	black	amber	black
Viscosity at 25°C (mPa.s)	thixotropic	4300	thixotropic
Density of uncured product (ISO 1675-85)  Density of polymerised product (ISO 2781-88)	1,66 -	1,04 -	- 1,55
Potlife, 500 g at 25°C (min)	-	-	65

MECHANICAL & THERMAL PROPERTIES (1)			
Hardness	ISO 868-85	Shore D1	90
Flexural strength	ISO 868-85	Shore D1	90
Flexural modulus of elasticity	ISO 178-93	MPa	90
Glass transition temperature	ISO 178-93	MPa	4 500

<sup>(1):</sup> Average values obtained on standardized specimens, on neat resin. Hardening: according to the curing cycle indicated on the next page.



SK2TM180-1

**Epoxy gel coat** 

#### ► SIZE

Packing	Part A	Part B
Kit	5 kg	2 kg

#### **▶ STORAGE**

Both parts have to be stored in a dry place and in its original unopened container at a temperature below 20°C. Any open can must be tightly closed under dry inert gas (dry air, nitrogen, etc.). A storage at temperature higher than 25°C can involve an increase in the resin viscosity, which will not modify the final characteristics of the product.

9 months Shelf life for Part A Shelf life for Part B 24 months

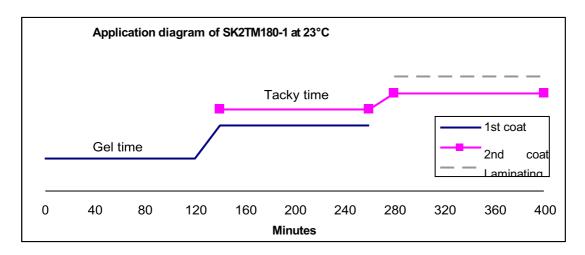
#### HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products: ensure good ventilation, wear gloves, safety glasses and clothes.

#### ▶ PROCESSING

Apply a release agent on a non-porous pattern, following relevant TDS. Apply SK2TM180-1 by shorthaired brush allowing to coats to dry as indicated.

The application of this product at low temperature and with a high level of humidity is not recommended.



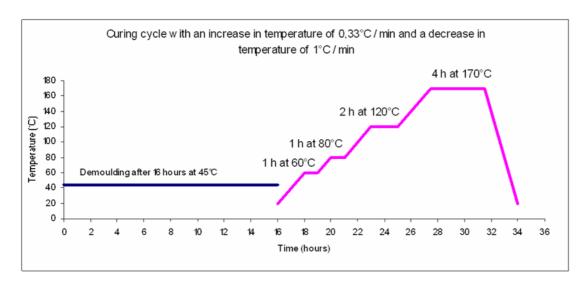


SK2TM180-1

**Epoxy gel coat** 

#### CURING

The pretreatment at 45°C must be started within 48 hrs maximum after the beginning of the application.



#### **▶** GUARANTEE

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## TECHNICAL DATA SHEET

SK2TM190-1

### **Curing Epoxy Tooling Prepreg**

Back to range

#### DESCRIPTION

SK2TM190-1 HX40 is an epoxy resin system that can be pre-impregnated into high performance fibers such as carbon and glass. It offers an extended work life of 10 days at 18°C. After a suitable post-cure an end-use temperature of 190°C is achieved.

The main application industries are aircraft, automotive, mechanical engineering. This product is used in various manufacturing processes of parts made of composite materials.

- Versatile curing options 50°C to 75°C
- 10 days work life 18°C
- Mold tools from low temperature patterns
- 12 months storage life at -18°C
- Recommended cure of 12 hours at 65°C
- Low volatile content giving excellent surface finish from an Autoclave cure

- Unsupported post-cure
- High end use temperature of 190°C
- Excellent drape and tack for complex shapes

#### **▶ TECHNICAL DATA**

	RESIN PROPERTIES
Tg (DMTA) after 190°C post-cure	Onset: 203°C, Peak Tan δ: 229°C



SK2TM190-1

**Curing Epoxy Tooling Prepreg** 

#### **▶ REINFORCEMENTS AVAILABLE**

Fiber type	Weight (gsm)	Weave style	Std. resin content w/o
High strength carbon 3k	205	2/2 Twill	46 (surface ply)
High strength carbon 12k	650	2/2 Twill	35
E Glass (1200 Tex WR)	870	2/2 Twill	28
E Glass	280	2/2 Twill	38
E Glass	600	2/2 Twill	28
E Glass (EC6 Yarn)	300	8 H Satin	38
E Glass (EC6 Yarn)	850	8 H Satin	28

Other fabrics and resin weights available on request.

#### **▶ INITIAL MINIMUM CURE TIMES**

Temperature °C	Time (hrs)
50	40
55	24
65	12
75	6



SK2TM200-3

### **Epoxy system for tool infusion**

Back to range

#### **▶ DESCRIPTION**

Epoxy system is used for production of composite tooling and structures by the usual impregnation methods like infusion or wet-lay-up. Low viscosity and long pot life allows infusion of thicker and more complex laminates. Composite tools have faster heat up and cool down rates for reduced production costs, and could be used up to 200°C. The system provides good wetting of reinforcements and fast impregnation.

This product is used in various manufacturing processes of parts made of composite materials.

#### **► TECHNICAL DATA**

Material type: Epoxy

PHYSICAL PROPERTIES			
Composition	Part A	Part B	Mixed
Mix ratio by weight	100	53	
Mix ratio by volume at 25°C	100	65	
Aspect	liquid	liquid	liquid
Colour	amber	colourless	amber
Viscosity at 25°C (mPa.s)	1,600	100	650
Specific gravity at 25 °C	1.16	0.95	-
Specific gravity of cured product at 23 °C	-	-	1.14
Pot life at 25°C on 150 g (min)	-	-	1,500
Pot life at 25°C on 500 g (min)	-	-	850

MECHANICAL PROPERTIES at 23°C			
Flexural modulus	ISO 178:2001	MPa	2,800
Flexural strength	ISO 178:2001	MPa	50
Glass temperature transition (Tg)	ISO 11359:2002	°C	215



SK2TM200-3

### **Epoxy system for tool infusion**

#### ► SIZE

Packing	Part A	Part B
Kit	17 kg	9 kg

#### **▶ STORAGE**

Both parts have to be stored safe from moisture and in their unopened container of origin. Opened containers must carefully be closed safe from moisture under inert and dry gas cover (dry air, nitrogen, etc.)

Shelf life for Part A 6 months at T°C between 8°C and 20°C

9 months at T°C under 8°C

Shelf life for Part B 24 months at T°C between 15°C and 25°C

#### **► CURE CYCLE**

After mixing according to the indicated ratio carry out impregnation of the reinforcements. We recommend to degas the mixed solution.

Then cure 24 hours at 40°C.

#### POST CURING

In order to avoid any risk of distortion or tooling shrinkage a precise curing cycle is to be observed. Reminder: demoulding takes place only after a 24 hours pre-curing at 40°C. A conformer is recommended for complex shapes.

Then the following thermal treatment can be carried out:

- 1 hour at 60°C
- 1 hour at 80°C
- 2 hours at 120°C
- 4 hours at 180°C

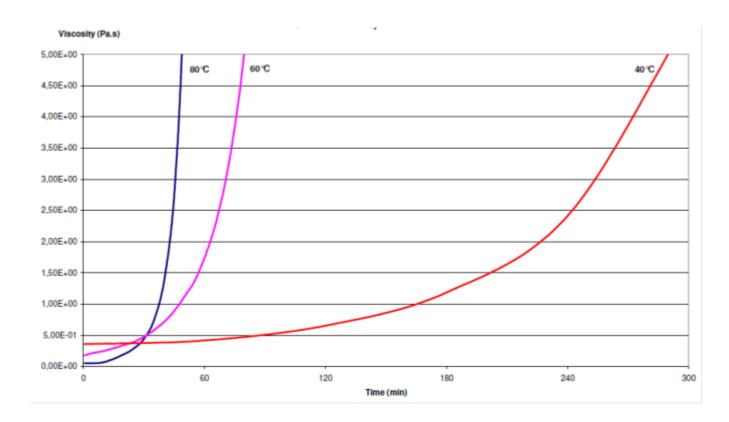
An increase and a decrease in temperature should be by 20°C per hour between stages.

## **TECHNICAL DATA SHEET**

SK2TM200-3

**Epoxy system for tool infusion** 

#### **▶ VISCOSITY PROFILE**



#### **►** NOTE

Resin is ideal for the infusion of moulds larger than 5 meters. The product does not self-combust in bulk. Initial viscosity is stable for 24 hours.



SK2TM200-8

Polyester filler for repairing the surface of the mould

Back to range

#### **▶ DESCRIPTION**

SK2TM200-8 is a quick setting industrial use filler paste. It is specifically formulated for use in the aircraft, aerospace, and other industries that perform manufacturing and repair work on items requiring above normal temperature ranges. The service temperature for SK2TM200-8 is up to 204°C. SK2TM200-8 is both chemical and water resistant, and may be used in underwater applications. Applications of SK2TM200-8 are both fast and permanent. Excellent machining and finishing results are achieved by grinding, sanding, scraping, etc. When exposed to elevated temperatures SK2TM200-8 has a tendency to darken, however it does not gas, bubble, or cause any finish distortion. This product does not contain wax and bonds readily to itself or other substrates such as FRP/SMC, high temperature epoxy molds, aluminum, steel, cast iron, urethane foam parts, and others. Polyester filler SK2TM200-8 is non-metallic, non-conductive, and non-sparking. It contains no styrene and is low odor.

#### **▶ TECHNICAL DATA**

- Exceptional adhesion
- Very quick setting
- Minimal shrinkage
- Excellent finishing and machinability
- Easy to use
- High gloss finish



### SK2TM200-8

### Polyester filler for repairing the surface of the mould

Back to range

PHYSICAL PROPERTIES							
		SK2TM200-8	Cream Hardener	Mixed			
Composition		Polyester Resin	BPO				
Mix ratio – by weight		100	2				
Aspect		Thixotropic paste	Thixotropic paste	Thixotropic paste			
Color		Gray, Black, White	White, Black, Red	Varies			
Density at 25°C	lbs./gal (g/cc)	14.17 (1.70)	10.0 (1.20)	14.11 (1.69)			
Pot life (100g) at 25 °C	minutes			4 - 7			
Volumetric weight	lbs./in <sup>3</sup> (g/cc)			0.061 (1.69)			

#### **▶ PROCESSING CONDITIONS**

- Thoroughly blend 100 parts resin with 2 parts hardener by weight for 1 to 1,5 minutes in a clean dry container or on a clean dry surface.
- Carefully scrape the surfaces while blending to ensure complete mixing and uniformity.

#### SURFACE PREPARATION AND APPLICATION

- The area to be filled or repaired should be thoroughly cleaned, roughened, cleaned again and allowed to dry prior to application to ensure the best possible adhesion.
- The mixed SK2TM200-8 should be buttered into the area, avoiding trapping air during application.
- After curing to a tack-free state, the material can be sanded and finished as needed.



SK2TM200-8

Polyester filler for repairing the surface of the mould

MECHANICAL AND THERMAL PROPERTIES							
Hardness	ASTM D-2240	Shore D	88 – 90				
Tensile strength	ASTM D-638	psi (MPa)	3,150 (22)				
Flexural strength	ASTM D-790	psi (MPa)	6,280 (43)				
Compressive strength	ASTM D-695	psi (MPa)	9,870 (68)				
Peak service temperature		°C	204				

#### STORAGE CONDITIONS

Product is guaranteed for 12 months when stored in original unopened containers between 15 - 25°C. Any opened can must be tightly closed.

#### HANDLING PRECAUTIONS

Normal health and security precautions should be observed when handling these products:

- Ensure good ventilation
- Wear gloves and safety glasses

For further information, please consult the material safety data sheets.

#### **▶** GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of our products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.

## TECHNICAL DATA SHEET

SK2TM200-11

**Styrene Free Polyester Gel Coat** 

Back to range

#### DESCRIPTION

Gelcoat SK2TM200-11 is a blend of specially formulated high temperature resins, color pigments, and additives designed to produce high gloss mold surfaces. It allows for rapid build-up of gel coat and gives hard, durable, impact and chemical resistant tools and molds. Back-up reinforcement may be applied after a firm gel is obtained. This normally takes about 75 - 115 minutes after application. It is most commonly used in high temperature tools for epoxy infusion, cultured marble molds, thermoforming molds, FRP molds and RTM mold repair. It contains no styrene and is low odor.

#### **► TECHNICAL DATA**

- High gloss
- Rapid build-up
- High service temperature
- Styrene-free

- Impact and chemical resistant
- Excellent finishing and afterwork
- Epoxy compatible
- Can be used as a top coat on non post-cured epoxy

PHYSICAL PROPERTIES					
Composition		Polyester resin	Hardener	Mixed	
Mix ratio by weight		100	2		
Aspect		Liquid	Liquid	Liquid	
Colour		Clear beige	Colorless	Clear beige	
Density at 25°C	g/cc	1.30	1.20	1.30	
Thixotropic index		7.2			
Pot life (102g) at 25°C	minutes			22	

### TECHNICAL DATA SHEET

SK2TM200-11

**Styrene Free Polyester Gel Coat** 

#### PROCESSING CONDITIONS

- Thoroughly blend 100 parts resin with 2 parts catalyst at indicated ratio for 1 to 2 minutes in a clean dry container
- Carefully scrape the surfaces while blending to ensure complete mixing and uniformity
- Gelcoat SK2TM200-11 can be colored according to customer's choice by adding coloring paste to match the designed mould color.

**ATTENTION:** Only color pastes on the polyester base are compatible with SK2TM200-11. Adding of 1% in weight of color paste gives a pure color.

Available colors of coloring pasts: green, white, blue. Minimum packing quantity of coloring paste: 1kg.

#### PACKAGING AND COLORS

Артикул	Цвет	Siaze of packing	
SK2TM200-11BG	Clear beige (neutral)	4,7 кг	
SK2TM200-11BL	Clear beige + Blue coloring paste	4,7 kg + 1,0 kg	
SK2TM200-11GN	Clear beige + Green coloring paste	4,7 kg + 1,0 kg	
SK2TM200-11WH	Clear beige + White coloring paste	4,7 kg + 1,0 kg	

#### SURFACE PREPARATION AND APPLICATION

- SK2TM200-11 should always be applied to properly prepared surfaces with mold release applied to surfaces as necessary
- Product is designed to be applied by brush or spraying (can be applied with spray gun at 3 / 4 bars with a 2.5 mm nozzle)
- For best performance, SK2TM200-11 should be applied in multiple passes of 0.07

   0.15 mm film thickness each to a final film thickness of 0.6 mm. Wait 2 3
   minutes between passes. This technique minimizes air entrapment and pinholes
   in the gel coat.

Wait for about 90 minutes minimum before starting lamination. Tests have been performed giving a good adhesion after 36 hours at 20°C.



SK2TM200-11

### **Styrene Free Polyester Gel Coat**

MECHANICAL AND THERMAL PROPERTIES (1)						
Hardness at demold ASTM D-2240 Shore D 87						
Coefficient of thermal expansion	ASTM E-1545	10 <sup>-6</sup> K <sup>-1</sup>	120			
Service temperature °C 204						

(1) Average values on standard specimens cured 3 hours at 150°C.

#### HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- ensure good ventilation
- wear gloves, safety glasses, waterproof clothes

For further information, please consult the product safety data sheet.

#### **► STORAGE**

This product has a shelf life of 6 months as indicated by the expiration date on the container when stored in original unopened containers between 15 - 25°C. Any opened can must be tightly closed.

#### **▶** GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of the products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident, which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.

# S T E V

### **TECHNICAL DATA SHEET**

SK4CV-1

**Carbon Veil** 

Back to range

### **▶ DESCRIPTION**

SK4CV-1 is a nonwoven carbon fibre veil with PVA binder that is made using a unique wet-forming process based on the principles of papermaking. It results in a very even distribution of fibres in the plane of the sheet.

Fibres are bonded with tailored levels of organic binders to optimize and use strength and flexibility. Binders can be selected for compatibility with the resin and may be soluble or insoluble in the resin to aid processing.

Veil applying surface engineering solutions to the problems encountered when using composites in highly demanding technical applications. This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

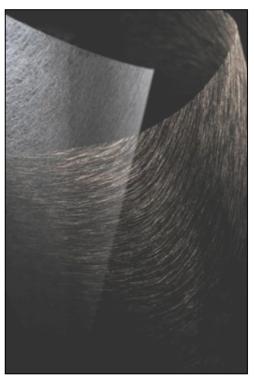
Material type: PAN Carbon Fibre Length: 6mm and 12mm

Fibre diameter: 7um

Binder: PVA (Poly vinyl alcohol)

Max. roll width: 1650 mm Min. roll width: 10 mm







SK4CV-1

**Carbon Veil** 

#### ► SIZE

Areal weight	Thickness	Tensile strength MD [N/15 mm]	Tensile strength CD [N/15 mm]	MD Surface Resistivity [ohm/sq]	CD Surface Resistivity [ohm/sq]
8 g/m²	0,12mm	14	7	10	22
10g/m²	0,14mm	18	9	8	12
17g/m²	0,21mm	31	15	5	14
20g/m²	0,24mm	36	18	4	9
30g/m²	0,37mm	54	27	3	7
34g/m²	0,41mm	61	31	3	7

Reference to order	Areal weight	Width	Length
SK4CV-1BK8G100150	8 g/m²	1000mm	150
SK4CV-1BK10G100150	10g/m²	1000mm	150
SK4CV-1BK17G100150	17g/m²	1000mm	150
SK4CV-1BK20G100150	20g/m²	1000mm	150
SK4CV-1BK30G100150	30g/m²	1000mm	150
SK4CV-1BK34G100150	34g/m²	1000mm	150

Shelf life: unlimited. Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing, protected from direct sun and heat source.

### **►** NOTE

Other values of areal weight till 400g are possible when the order exceeds 1000m<sup>2</sup>.



SK4CV-1

Carbon Veil

Please contact us for get information about MOQ for each product.

Surface resistivity is measured using a Vermason 75mm square contact block. The test sample size fits the contact blocks. There is no pressure applied to the sample during testing. Applied pressure would reduce the surface resistivity values.



SK4CV-2

**Carbon Veil** 

Back to range

#### DESCRIPTION

SK2CV-2 is nonwoven carbon fibre veil with styrene soluble polyester binder that is made using a unique wet-forming process based on the principles of papermaking. It results in a very even distribution of fibres in the plane of the sheet.

Fibres are bonded with tailored levels of organic binders to optimize and use strength and flexibility. Binders can be selected for compatibility with the resin and may be soluble or insoluble in the resin to aid processing.

Veil applying surface engineering solutions to the problems encountered when using composites in highly demanding technical applications. This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

Material type: Carbon

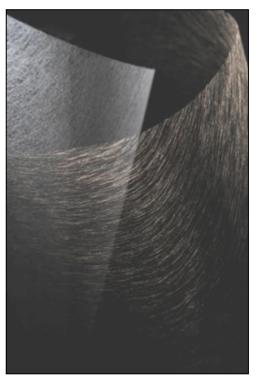
Fibre Length: 6 mm and 12mm

Fibre diameter: 7µm

Binder: Styrene soluble polyester

Max. roll width: 1650 mm Min. roll width: 10 mm





# S T E V

## **TECHNICAL DATA SHEET**

SK4CV-2

**Carbon Veil** 

### **► SIZE**

Areal weight	Thickness	Tensile strength MD [N/15 mm]	Tensile strength CD [N/15 mm]	MD Surface Resistivity [ohm/sq]	MD Surface Resistivity [ohm/sq]
4g/m²	0,05mm	8	5	43	52
10g/m²	0,13mm	19	17	16	24
17g/m²	0,20mm	29	18	7	12
20g/m²	0,23mm	33	22	7	11
30g/m²	0,35mm	43	25	4	8
34g/m²	0,40mm	50	44	5	6

Reference to order	Areal weight	Width	Length
SK4CV-2BK4G100150	4g/m²	1000mm	150
SK4CV-2BK10G100150	10g/m²	1000mm	150
SK4CV-2BK17G100150	17g/m²	1000mm	150
SK4CV-2BK20G100150	20g/m²	1000mm	150
SK4CV-2BK30G100150	30g/m²	1000mm	150
SK4CV-2BK34G100150	34g/m²	1000mm	150

Shelf life: unlimited. Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing, protected from direct sun and heat source.

### **► NOTE**

Other values of areal weight till 400g are possible when the order exceeds 1000m<sup>2</sup>.

Please contact us for get information about MOQ for each product.



SK4CV-2

**Carbon Veil** 

Surface resistivity is measured using a Vermason 75mm square contact block. The test sample size fits the contact blocks. There is no pressure applied to the sample during testing. Applied pressure would reduce the surface resistivity values.



SK4CV-3

**Carbon Veil** 

Back to range

### **▶ DESCRIPTION**

SK4CV-3 is a nonwoven carbon fibre veil with cross-linked polyester binder that is made using a unique wet-forming process based on the principles of papermaking. It results in a very even distribution of fibres in the plane of the sheet.

Fibres are bonded with tailored levels of organic binders to optimize and use strength and flexibility. Binders can be selected for compatibility with the resin and may be soluble or insoluble in the resin to aid processing.

Veil applying surface engineering solutions to the problems encountered when using composites in highly demanding technical applications. This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

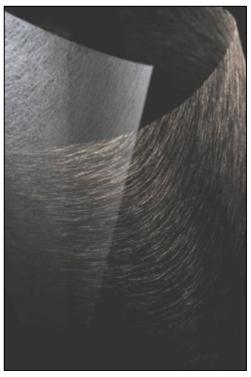
Material type: Carbon

Fibre Length: 6mm and 12mm

Binder: Cross-linked polyester

Max.roll width: 1650 mm Min. roll width: 10 mm







SK4CV-3

**Carbon Veil** 

#### ► SIZE

Areal weight	Thickness	Tensile strength MD [N/15 mm]
10g/m²	0,14mm	15
12g/m²	0,16mm	18
20g/m²	0,25mm	33
24g/m²	0,42mm	52

Reference to order	Areal weight	Width	Length
SK4CV-3BK10G100150	10g/m²	1000mm	150
SK4CV-3BK12G100150	12g/m²	1000mm	150
SK4CV-3BK20G100150	20g/m²	1000mm	150
SK4CV-3BK24G100150	24g/m²	1000mm	150

Shelf life: unlimited. Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing, protected from direct sun and heat source.

#### ▶ NOTE

Other values of areal weight till 400g are possible when the order exceeds 1000m<sup>2</sup>.

Please contact us for get information about MOQ for each product.

Surface resistivity is measured using a Vermason 75mm square contact block. The test sample size fits the contact blocks. There is no pressure applied to the sample during testing. Applied pressure would reduce the surface resistivity values.



SK4CV-4

**Carbon Veil** 

Back to range

### **▶ DESCRIPTION**

SK4CV-4 is a nonwoven carbon fibre veil with cross-linked styrene acrylic binder that is made using a unique wet-forming process based on the principles of papermaking. It results in a very even distribution of fibres in the plane of the sheet.

Fibres are bonded with tailored levels of organic binders to optimize and use strength and flexibility. Binders can be selected for compatibility with the resin and may be soluble or insoluble in the resin to aid processing.

Veil applying surface engineering solutions to the problems encountered when using composites in highly demanding technical applications. This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

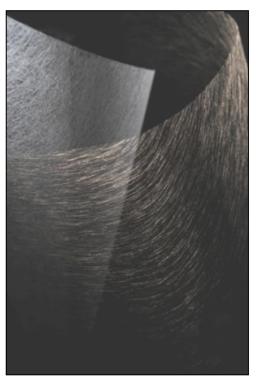
Material type: PAN Carbon

Fibre Length: 12mm Fibre diameter: 7µm

Binder: Cross-linked styrene acrylic

Max. roll width: 1650 mm Min. roll width: 10 mm





## S T E V I

### **TECHNICAL DATA SHEET**

SK4CV-4

**Carbon Veil** 

### **► SIZE**

Areal weight	Thickness	Tensile strength MD [N/15 mm]	Tensile strength CD [N/15 mm]	Surface Resistivity MD [ohm/sq]	Surface Resistivity CD [ohm/sq]
4g/m²	0,05mm	8	4	13	38
10g/m²	0,12mm	30	8	8	21
14g/m²	0,17 mm	40	14	7	11
17g/m²	0,20mm	46	24	5	9
34g/m²	0,40mm	70	38	3	4,4

Reference to order	Areal weight	Width	Length
SK4CV-4BK4G100150	4g/m²	1000mm	150
SK4CV-4BK10G100150	10g/m²	1000mm	150
SK4CV-4BK14G100150	14g/m²	1000mm	150
SK4CV-4BK17G100150	17g/m²	1000mm	150
SK4CV-4BK34G100150	34g/m²	1000mm	150

Shelf life: unlimited. Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing, protected from direct sun and heat source.

#### ▶ NOTE

Other values of areal weight till 400g are possible when the order exceeds 1000m<sup>2</sup>.

Please contact us for get information about MOQ for each product.

Surface resistivity is measured using a Vermason 75mm square contact block. The test sample size fits the contact blocks. There is no pressure applied to the sample during testing. Applied pressure would reduce the surface resistivity values.



SK4GV-4

**Glass Veil** 

Back to range

#### DESCRIPTION

SK4GV-1 is a nonwoven E glass fibre veil, made using a unique wet-forming process based on the principles of papermaking, this results in a very even distribution of fibres in the plane of the sheet.

Fibres are bonded with tailored levels of organic binders to optimize end use strength and flexibility. Binders can be selected for compatibility with the resin and may be soluble or insoluble in the resin to aid processing.

The veils offer means of applying surface engineering solutions to the problems encountered when using composites in highly demanding technical applications. This product is used in various manufacturing processes of parts made of composite materials.

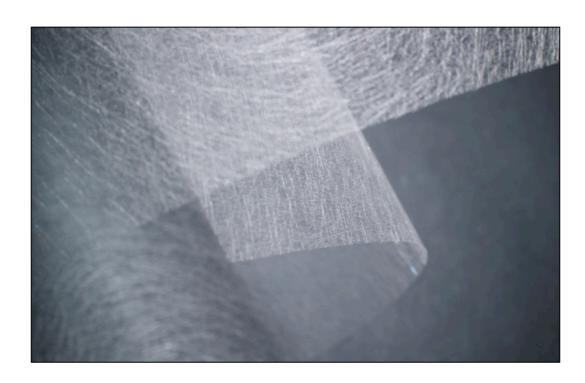
### **► TECHNICAL DATA**

Material type: E glass Fibre length: 12 mm

Fibre diameter: 6µm and 11µm

Binder type: PVA (Poly vinil alcohol)

Max. roll width: 1625 mm
Min. roll width: 10 mm
Roll length: 150 m





SK4GV-1

**Glass Veil** 

### **► SIZE**

Areal weight	Fiber thickness [µm]	Thickness	Tensile strength MD [N/15 mm]
10g/m²	6	0,08mm	13
10g/m²	11	0,10mm	12
17g/m²	11	0,15mm	20
22g/m²	11	0,19mm	26
30g/m²	11	0,27mm	36
34g/m²	11	0,29mm	41
42g/m²	11	0,35mm	50
46g/m²	11	0,38mm	55
50g/m²	11	0,42mm	60
200g/m²	11	1,50mm	140

Reference to order	Areal weight	Width	Length
SK4GV-1WH10G100150T	10g/m²(6μm)	1000mm	150
SK4GV-1WH10G100150	10g/m²(11µm)	1000mm	150
SK4GV-1WH17G100150	17g/m²	1000mm	150
SK4GV-1WH22G100150	22g/m²	1000mm	150
SK4GV-1WH30G100150	30g/m²	1000mm	150
SK4GV-1WH34G100150	34g/m²	1000mm	150
SK4GV-1WH42G100150	42g/m²	1000mm	150
SK4GV-1WH46G100150	46g/m²	1000mm	150



SK4GV-1

**Glass Veil** 

SK4GV-1WH50G100150	50g/m²	1000mm	150
SK4GV-1WH200G100150	200g/m²	1000mm	150

Shelf life: unlimited. Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing, protected from direct sun and heat source.

### **▶** NOTE

Other values of areal weight are possible when the order exceeds 1000m<sup>2</sup>.

Please contact us for get information about MOQ for each product.

Surface resistivity is measured using a Vermason 75mm square contact block. The test sample size fits the contact blocks. There is no pressure applied to the sample during testing. Applied pressure would reduce the surface resistivity values.

# S T E V

### TECHNICAL DATA SHEET

### SK2TM200-1

### Powdered mandrel material

Back to range

#### DESCRIPTION

Aquapour is a powdered mandrel material, which is easily mixed with water. It may be poured or injected into molds to form complex mandrels for composite lay-ups. Material is readily soluble in cold tap water and formulated to minimize air bubbles and voids. It can easily be washed away from the finished part.

Aquapour saves time, labor and the wash-away feature minimizes the possibility of damaging fine details.

This product is used in various manufacturing processes of parts made of composite materials.

#### **Benefits**

- Easily mixed with water
- · Makes complex part manufacturing simple
- Pourable and injectable
- Easily dried in a convection oven
- Environmentally friendly, no special
- Easily repaired and re-formed disposal procedures required
- Reduces labor
- Washes away in cold tap water
- Saves money
- · Compatible with all commercial resins
- Saves time prepreg compounds

Aguaseal is recommended to seal the tool and prevent resin migration.

#### **▶ TECHNICAL DATA**

Material type: Powder Colour: White

Compressive strength: 596 ± 46 pci (pound per cubic inch) at 21°C

Density Dry: 573,46 kg/m<sup>3</sup>

Coefficient of Thermal Expansion: 3.6 x 10<sup>-6</sup> mm/mm°C

### ► SIZE

Packing	Volume	Weight
SK2TM200-1A	5 Gal (18,9I)	Pail, Ø 330 x 380mm, 7kg



### SK2TM200-1

### Powdered mandrel material

SK2TM200-1B	55 Gal (208l)	Drum, Ø 600 x 930mm, 77kg

### **▶ WATERSOLUBLE MANDREL PROCESS**



Shelf life: 24 months

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **▶** NOTE

Please contact us for getting special manufacturing guide with involved techniques and properties of the product.

# S T E V

### TECHNICAL DATA SHEET

SK2TM200-2

### Core material ready to use

Back to range

#### DESCRIPTION

Aquacore is a new high-temperature, water soluble fugitive core material. Aquacore is supplied as a moist powder which is machined, molded or hand shaped to the desired geometry and dried at 93°C. With a specific gravity of 0.45 wet, it is lightweight, easily machined, and thermally stable. Aquacore is compatible with most commercial epoxy and cyanate resin ester systems with cure temperatures below 193°C. It can be dissolved away from the cured composite quickly using tap water, and the effluent is nontoxic.

Unlike conventional mandrel materials, which must be tediously removed from composite lay-ups, Aquacore mandrel is readily soluble in cold tap water and can easily be washed away from the finished part. It saves time, labor and the wash-away feature minimizes the possibility of damaging fine details.

This product is used in various manufacturing processes of parts made of composite materials.

#### **Benefits**

- Washes out in cold tap water in minutes
- Environmentally friendly, no special
- · Nontoxic and odorless
- Remove mandrel from previously
- Reduces labor and saves money
- Compatible with all commercial resins and disposal procedures required prepreg compounds
- Makes complex part manufacturing simple
- Strong and lightweight
- · Easily repaired and re-formed
- Saves time inaccessible hidden areas
- Easily dried in a convection oven

Aguaseal is recommended to seal the tool and prevent resin migration.

### **► TECHNICAL DATA**

Material type: Pouder Color: White

Density Dry: -1500 -2000 psi

Coefficient of Thermal Expansion: 3.6 x 10<sup>-6</sup> mm/mm°C

#### ► SIZE

Packing	Volume	Weight
Small Kit	5 Gal (18,9I)	Pail, Ø 330 x 380mm, 8,51kg
Big Kit	55 Gal(208I)	Drum, Ø 600 x 930mm, 93,61 kg

Shelf life: 24 months

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 377 of 460



SK2TM200-2

Core material ready to use

### **▶** NOTE

Please contact us for getting special manufacturing guide with involved techniques and properties of the product. Aquacore is also available in machinable, pre-formed, dried blocks in virtually any size. Please contact for more details about ordering mandrels in your shape and size.

# S T E V

### TECHNICAL DATA SHEET

SK2TM200-4

### Spray-/brushable seal for mandrel

Back to range

#### **▶** DESCRIPTION

Aquaseal 3818 has been specially formulated to seal the water-soluble mandrel materials Aquacore and Aquapour. It provides a smooth, nonporous finish on the surface of a mold or tool and inhibits the migration of resins into the porous tool during the lay up or RTM process.

Aquaseal 3818 is compatible with the core temperatures of commercial resins and prepreg compounds up to 193°C and washes away in minutes with tap water.

Aquaseal 3818 may be applied with a spray gun or brush. Several coats should be applied.

It should be applied evenly over the entire part so as to prevent cracking of the mandrel. We have added an environmentally safe blue dye to aid in detecting how well the sealer is applied.

After achieving the desired finish, Aquaseal 3818 is thermally stable up to 193°C. To remove, simply wash away mandrel material and sealer with plain tap water.

Aguaseal 3818 is environmentally friendly; no special disposal procedures are required.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: Liquid Color: Blue

#### **► SIZE**

Packing	Volume	Weight
SK2TM200-4A	1Quart(0,95l)	Pail, Ø 90 x 260mm, 1kg
SK2TM200-4B	1Gal (3,8I)	Pail, Ø 160 x 310mm, 4kg

Shelf life: 12 months

Storage conditions: it is recommended to store at temperatures between +15°C and +25°C in original packing.

### ▶ NOTE

Please contact us for getting special manufacturing guide with involved techniques and properties of the product.



### SK2TM200-7

### **Block for manufacturing of mandrel**

Back to range

#### DESCRIPTION

SK2TM200-7 – water soluble block, prefabricated, pressed and dried, vacuum sealed to avoid moisture uptake for manufacturing of mandrel. The block is made from the powder SK2TM200-1 (Aquapour). Bondable to thicker constructions.

#### ► TECHNICAL PROPERTIES

- Water soluble material
- Prefabricated, pressed and dried
- Vacuum sealed to avoid moisture uptake
- Bondable to thicker constructions
- Colour: light grey
- · Ready to use
- Machineable
- Various thickness available
- Other dimensions on request



STANDARD SIZES			
Article	Dimensions		
88050	620 x 620 x 50 mm (19.22 Litre)		
88055	620 x 620 x 80 mm (30.75 Litre)		
88060	620 x 620 x 100 mm (38.44 Litre)		
88065	620 x 620 x 120 mm (46.13 Litre)		
88070	620 x 620 x 150 mm (57.66 Litre)		
88075	620 x 620 x 200 mm (76.88 Litre)		



SK2TM200-7

**Block for manufacturing of mandrel** 

### BASIC DATA FOR MACHINING AQUA BLOCKS

	Speed	Feed	Cutting depth
Roughing	5'000 U/min	1524mm	5.0mm
Finishing	8'000 U/min	635mm	0.13mm

Notes: This data is given as a guide only. If a complex shape operator should adjust accordingly. Contact us for your specific manufacturing requirements.

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **▶** GARANTY

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SK2TM200-9

Paste for filling, bonding or patching

Back to range

### **▶** DESCRIPTION

Aquafill has been specially formulated to fill, bond or patch the watersoluble mandrel materials SK2TM200-1 (Aquacore), SK2TM200-2 (Aquapour) и SK2TM200-7.

Once applied, Aquafill will give the surface of the mandrel a smooth porcelain-like feel.

Α

Once the mandrel has been formed and dried in a convention oven, Aquafill can be applied easily with a rubber squeegee, such as those used in autobody applications. Aquafill takes slightly longer to washout than SK2TM200-1 (Aquacore) u SK2TM200-2 (Aquapour), but just like the Aquacore and Aquapour it is completely environmentally friendly and requires no special procedures for disposal.

This product is used in various manufacturing processes of parts made of composite materials.







#### **► SIZE**

Packing	Volume
SK2TM200-9A	1Quart(0,95l)
SK2TM200-9B	1Gal (3,8I)

Storage conditions: it is recommended to store at temperatures between +15°C and +25°C in original packing.

# S T E V

### TECHNICAL DATA SHEET

### MM-TM70-RIM

Master-model for composite tool manufacturing in resin infusion technology

Back to range

#### DESCRIPTION

Master-model is an initial carrier of shape and surface quality of the final product. We offer high quality Master-models produced by the company «KOLLER». They are designed to produce composite tool using resin infusion technology to create high quality shape-generating surface. Master-model is a light, vacuum tight and solid structure fabricated using sandwich-structure technology with application of special modeling compound, applied on the previously created structure. Comparing to modeling board Master-models this technology allows to avoid starved spots, porosity and interstices and also to avoid joints that reduce surface quality of composite tool.

Manufacturing of Master Model includes following steps:

 Analyses of technical files received from the customer like Technical Statement of Work (SOW) and 3D models.
 Before going to the next step Customer will get mathematical model of final Master-model for check and validation.



- Design and manufacturing of Master-model supporting structure includes:
- Creation of wooden structure:
- Creation of polystyrene core with following milling with negative offset from the theoretical contour;
- ✓ Application of expanded foam (density 100kg/m3) with negative offset from the theoretical contour to create primary volume;
- Laminating: application, impregnation and polymerization of reinforcing layers.
- Modeling of shape-generating structure of Master-model includes applying of epoxy compound SK2TM70.

To achieve the best strength characteristics of the applied compound model-master have to be thermo stabilized.





It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 383 of 460



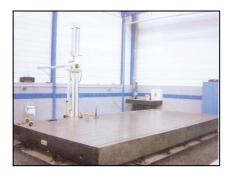
MM-TM70-RIM

Master-model for composite tool manufacturing in resin infusion technology

Mechanical treatment of Master-models is carried out on one of three available machines HSM milling UGV 5 axis «FOREST LINE» with working area 6800 mm x 3500 mm x 2000 mm and with surface finish Ra 1,6. Application of the contour lines and labels can be done on request on finished models. Final finishing is achieved by polishing grain 320.



Final check of Master-model includes the vacuum test and geometry test measuring the deviation from the theoretical contour. The vacuum test is carried out in the vacuum bag to prove that the maximum vacuum loss is no more than 0.1 bar for 10 minutes. Geometry test measuring the deviation from specified values is carried out with the help of the POWER INSPECT DELCAM software and special measuring arm for quality control of the tool. Measuring arm and digitalization have useful area of 6000 mm x 3000 mm x 2000 mm.



### **► TECHNICAL DATA**

THERMAL AND MECHANICAL PROPERTIES OF SK2TM70-4 1				
Hardness  7 days at 23°C  16 hours at 70°C	ISO 868 : 2003	Shore D1	65 67	
Glass transition temperature (Tg)  7 days at 23°C 16 hours at 70°C	ISO 11359 : 1999	°C	50 83	
Coefficient of thermal expansion (CTE)  16 hours at 70 °C	ISO 11359 : 1999	10 <sub>-6</sub> .K <sub>-1</sub>	60	
Tensile modulus	ISO 527 : 1993	MPa	1,100	
Tensile strength	ISO 527 : 1993	MPa	14	



### MM-TM70-RIM

# Master-model for composite tool manufacturing in resin infusion technology

Elongation at break	ISO 527 : 1993	%	2.8
Flexural modulus	ISO 178 : 2001	MPa	1,100
Flexural strength	ISO 178 : 2001	MPa	24

(2) Average values obtained on standard specimens / Hardening 24 hr at 23°C + 16 hr at 70°C

### ► ADVANTAGES OF OUR MASTER- MODELS

- Manufacturing of oversized Master-model within a very short time;
- High surface quality of Master-models;
- High working temperature of Master-model;
- Low coefficient of thermal expansion (CTE): geometrical stability of model;
- Installation of rigidity ribs for redistribution of loads;
- Creating of supporting structure with bearing and rigging elements.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

### **▶** NOTE

Before applying the release liquids SK2TR399-1 or SK2TR399-2, it is recommended to treat the surface of the Master-model by sealing material SK2TR399-4. Apart from reducing of the surface porosity, it has the ability to enhance the performance of semi-permanent release reagents.



SK2TM65-1

### Two-component compound for master model build-up

Back to range

#### DESCRIPTION

SK2TM65-1 is used for mocks-up production by extrusion process.

### **► TECHNICAL DATA**

- · Very good surface aspect
- · Good behaviour on vertical support up to 30 mm
- · Good thermal resistance

PHYSICAL PROPERTIES				
COMPOSITION		RESIN	HARDENER	MIXING
Mix ratio by weight Mix ratio by volume at 25°C		100 100	100 100	
Aspect		Viscous paste	Viscous paste	Viscous paste
Colour		Grey	White	Off grey
Viscosity at 25°C 0,9 s <sup>-1</sup> (Pa.s)	ISO 3219 : 1993	800	800	800
Specific gravity at 25°C (g/cm³)  Specific gravity of cured product at 23°C	ISO 1675 : 1985 ISO 2781 : 1996	0.60	0.62	- 0.63



SK2TM65-1

### Two-component compound for master model build-up

THERMAL AND MECHANICAL PROPERTIES				
Hardness 7 days at 23°C 24 hours at 60°C	ISO 868 : 2003	Shore D1	52/48 53/49	
Glass transition temperature (Tg) 7 days at 23°C 16 hours at 60°C	ISO 11359 : 2002	°C	45 83	
Coefficient of thermal expansion  16 hours at 60 °C	ISO 11359 : 1999	10 <sub>-6</sub> .K <sub>-1</sub>	70	
Tensile modulus	ISO 527 : 1993	MPa	650	
Tensile strength	ISO 527 : 1993	MPa	9	
Elongation at break	ISO 527 : 1993	%	2.9	
Flexural modulus	ISO 178 : 2001	MPa	600	
Flexural strength	ISO 178 : 2001	MPa	13	
Compressive strength at yield	ISO 604 : 2002	MPa	13	
Compressive modulus	ISO 604 : 2002	MPa	450	

Average values obtained on standard specimens / Hardening 24 hr at  $23^{\circ}\text{C}$  + 16 hr at  $60^{\circ}\text{C}$ 

During processing the dispensing nozzle must be maintained perpendicular to the surface on which the product is applied. Ensure overlap of ribbon.

CAUTION: Exotherm mostly depends of the type of machine and of the working parameters such as:

- Room temperature
- Insulating property of support
- The mixture temperature (depending of the type of mixer: static or dynamic) and the speed of mixing and output
- Applied thickness

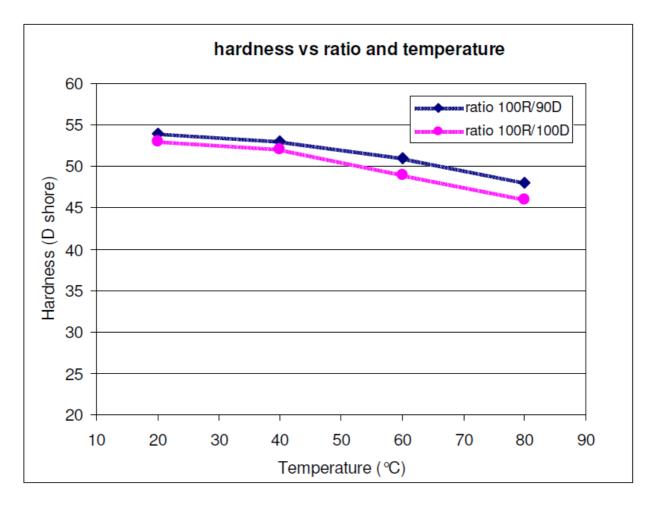


### SK2TM65-1

### Two-component compound for master model build-up

EXOTHERMIC PEAK AND HARDENING TIME *					
Thickness (mm)  Product (hours (hours) / temperature)  Exothermic peak (hours) Workability (hours) (mm/removed)					
30	25	3 / 70	24	<1	
30	20	3,5 / 50	48	<1	

<sup>\*</sup> Room temperature: 20/22°C; polystyrene support





SK2TM65-1

Two-component compound for master model build-up

#### PROCESSING CONDITIONS

On vertical support, it is sometimes recommended to apply a thin coat of product with a spatula; this will help to reinforce the bonding on the support.

For ceiling application, we recommend 30 mm of maximum thickness.

NB: With dynamic mixing machine, the elevation of temperature due to the mixing must not exceed +5-6°C.

For example: from 20 to 25-26°C after mixing.

It is needed to adjust extrusion parameter (flow and rotation speed) to get it.

Be aware, when you change the flow, rotation speed of the mixer needs also to be changed.

#### HANDLING PRECAUTIONS

Normal health and security precautions should be observed when handling these products:

- Ensure good ventilation
- Wear gloves, safety glasses and protective clothes

For further information, please consult the material safety data sheets.

#### STORAGE CONDITIONS

Storage conditions: it is recommended to store at temperatures between +15°C and +25°C in original packing. Use within 12 months of the manufacturing date. Expiry date indicated on the packaging.

#### **▶ PACKAGING**

Resin	Hardener	Int. diameter of drums
1 x 25 kg	1 x 25 kg	360 mm
1 x 114 kg	1 x 114 kg	570 mm

### **► GUARANTEE**

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of our products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.



SK2TM70-4

### Two-component compound for master model build-up

Back to range

#### DESCRIPTION

The compound is used for manufacturing large dimension tool, composite tooling and mocks-up production by extrusion process.

The paste can also be used for inserts and plates manufacturing for master models and tools in case it is necessary to build-up the size or to change the form of the shape-generating surface.

#### **► TECHNICAL DATA**

- · Very good surface aspect
- Good behaviour on vertical support up to 30 mm
- Good thermal resistance

PHYSICAL PROPERTIES							
COMPOSITION		RESIN	HARDENER	MIXING			
Mix ratio by weight		100	100				
Aspect		Viscous paste	Viscous paste	Viscous paste			
Colour		Grey	White	Grey			
Viscosity at 25°C 0,9 s-1 (Pa.s)	RM 100 Lamy	600	700	600			
Specific gravity at 25°C (g/cm3)  Specific gravity of cured product at 23°C	ISO 1675 : 1985 ISO 2781 : 1996	0.80	0.80 -	- 0.82			



SK2TM70-4

Two-component compound for master model build-up

THERMAL AND MECHANICAL PROPERTIES 1					
Hardness  7 days at 23°C 16 hours at 70°C	ISO 868 : 2003	Shore D1	65 67		
Glass transition temperature (Tg)  7 days at 23°C 16 hours at 70°C	ISO 11359 : 1999	°C	50 83		
Coefficient of thermal expansion (CTE)  16 hours at 70 °C	ISO 11359 : 1999	10 <sub>-6</sub> .K <sub>-1</sub>	60		
Tensile modulus	ISO 527 : 1993	MPa	1,100		
Tensile strength	ISO 527 : 1993	MPa	14		
Elongation at break	ISO 527 : 1993	%	2.8		
Flexural modulus	ISO 178 : 2001	MPa	1,100		
Flexural strength	ISO 178 : 2001	MPa	24		

(3) Average values obtained on standard specimens / Hardening 24 hr at 23°C + 16 hr at 70°C

During processing the dispensing nozzle must be maintained perpendicular to the surface on which the product is applied. Ensure overlap of ribbon.

CAUTION: Exotherm mostly depends of the type of machine and of the working parameters such as:

- Room temperature
- Insulating property of support
- The mixture temperature (depending of the type of mixer: static or dynamic) and the speed of mixing and output
- Applied thickness

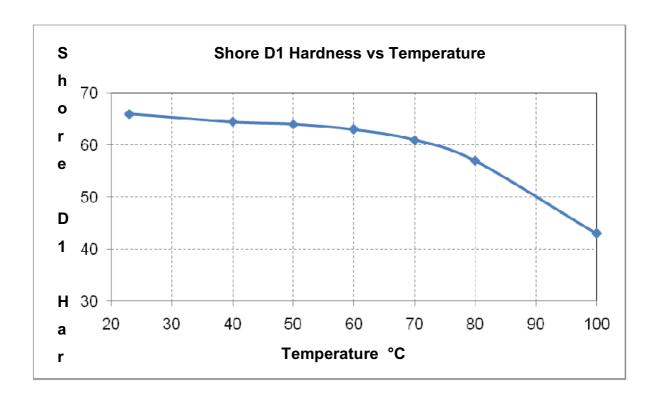


SK2TM70-4

### Two-component compound for master model build-up

EXOTHERMIC PEAK AND HARDENING TIME *					
Thickness (mm)	Product temperature (°C)	Workability (hours)	Linear shrinkage (mm/m)		
25	27	2.5	24	<1	

<sup>\*</sup> Room temperature: 20/22°C; polystyrene support



### **▶ PROCESSING CONDITIONS**

On vertical support, it is sometimes recommended to apply a thin coat of product with a spatula; this will help to reinforce the bonding on the support.

For ceiling application, we recommend 30 mm of maximum thickness.

For dynamic mixing machine, please contact us for parameters.



SK2TM70-4

Two-component compound for master model build-up

#### HANDLING PRECAUTIONS

Normal health and security precautions should be observed when handling these products:

- Ensure good ventilation
- Wear gloves and safety glasses

For further information, please consult the material safety data sheets.

### STORAGE CONDITIONS

Storage conditions: it is recommended to store at temperatures between +15°C and +25°C in original packing. Use within 9 months of the manufacturing date. Expiry date indicated on the packaging.

#### PACKAGING

Resin	Hardener	Int. diameter of drums
1 x 35 kg	1 x 35 kg	360 mm
1 x 150 kg	1 x 150 kg	570 mm

#### **►** GUARANTEE

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# S T E V

# **TECHNICAL DATA SHEET**

### SK2TM75-6

Two-component compound for master model manufacturing and mold build-up

Back to range

#### DESCRIPTION

SK2TM75-6 is used for master model and mocks-up manufacturing by extrusion process or mold build-up.

### ► TECHNICAL DATA

- Very good surface quality
- Good behaviour on vertical support up to 30 mm
- Short hardening time even for 20 mm thick
- High using temperature
- Low CTE: good dimensional stability

PHYSICAL PROPERTIES						
COMPOSITION		RESIN	HARDENER	MIXING		
Mix ratio by weight		100	100			
Aspect		Viscous paste	Viscous paste	Viscous paste		
Colour		Grey	White	Grey		
Viscosity at 25°C 0,9 s <sup>-1</sup> (Pa.s)	RM 100 Lamy	800	800	800		
Specific gravity at 25°C (g/cm³)  Specific gravity of cured product at 23°C	ISO 1675 : 1985 ISO 2781 : 1996	1.06 -	1.06 -	1.06 1.08		
Pot life at 25°C on 500 g (min)	-			140		



### SK2TM75-6

Two-component compound for master model manufacturing and mold build-up

THERMAL AND MECHANICAL PROPERTIES (1)					
Applied layer			30 mm	15 mm	
Glass transition temperature (Tg) 24 hours at 25°C +16 hours at 60°C / 80°C	ISO 11359 : 1999	°C	71 83 / 89	54 82 / 91	
Deflection temperature	ISO 75 : 2004	°C	78		
Coefficient of thermal expansion (CTE)  24 hours at  25°C  + 16 hours at 60°C / 80°C	ISO 11359 : 1999	10 <sup>-6</sup> .K <sup>-1</sup>	59 53 / 55	61 59 / 58	
Hardness 24 hours at 25°C + 16 hours at 80°C	ISO 868 : 2003	Shore D1/ D15	73 / 71 75 / 74	69 / 65 75 / 74	
Tensile modulus	ISO 527 : 1993	MPa	2,4	100	
Tensile strength	ISO 527 : 1993	MPa	2	1	
Elongation at break	ISO 527 : 1993	%	2	.2	
Flexural modulus	ISO 178 : 2001	MPa	2,0	000	
Flexural strength	ISO 178 : 2001	MPa	3	6	
Compressive strength at yield	ISO 604 : 2002	MPa	36		

<sup>(1)</sup> Average values obtained on standard specimens / Hardening 24 hours at 25°C + 16 hours at 80°C

During processing the dispensing nozzle must be maintained perpendicular to the surface on which the product is applied. Ensure overlap of ribbon.

CAUTION: Exotherm mostly depends of the type of machine and of the working parameters such as:

- Room temperature
- Insulating property of support
- The mixture temperature (depending of the type of mixer: static or dynamic) and the speed of mixing and output
- Applied thickness

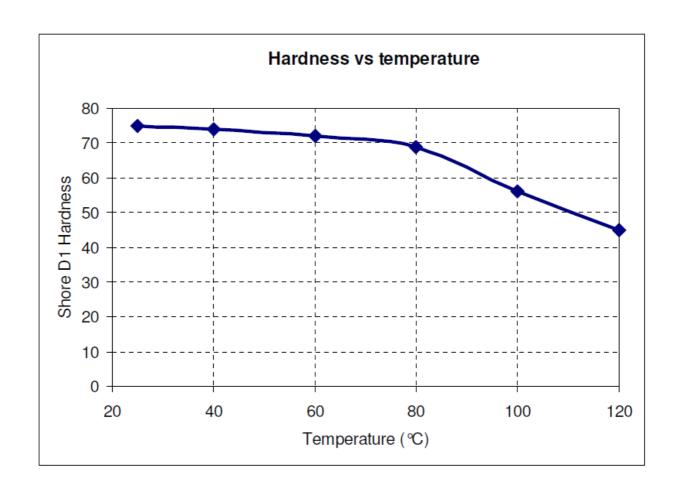


### SK2TM75-6

Two-component compound for master model manufacturing and mold build-up

EXOTHERMIC PEAK AND HARDENING TIME *						
Thickness (mm)	Product temperature (°C)	Exothermic peak (min)	Exothermic peak (°C)	Workability (hours)	Linear shrinkage (mm/m)	
30	29	140	82	12	<1	
15	29	140	46	16	<1	
2	29	200	35	20	-	

<sup>\*</sup> Room temperature: 25°C; polystyrene support





### SK2TM75-6

Two-component compound for master model manufacturing and mold build-up

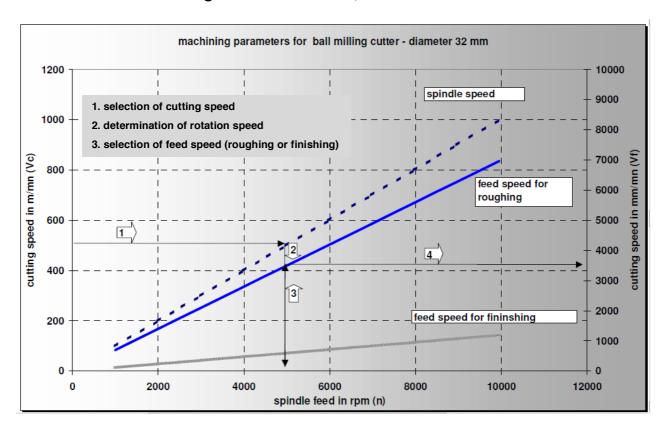
### PROCESSING CONDITIONS

On vertical support, it is sometimes recommended to apply a thin coat of product with a spatula; this will help to reinforce the bonding on the support.

For ceiling application, we recommend 30 mm of maximum thickness.

For dynamic mixing machine, please, contact us for parameters.

# Machining parameters determined with ball milling cutter like GRT 32, GRT 25 and GRT 16



$$\mathbf{Vc} = \frac{\Pi * D * n}{1000}$$
 m/min

$$fz = \frac{Vf}{Z * n} mm$$

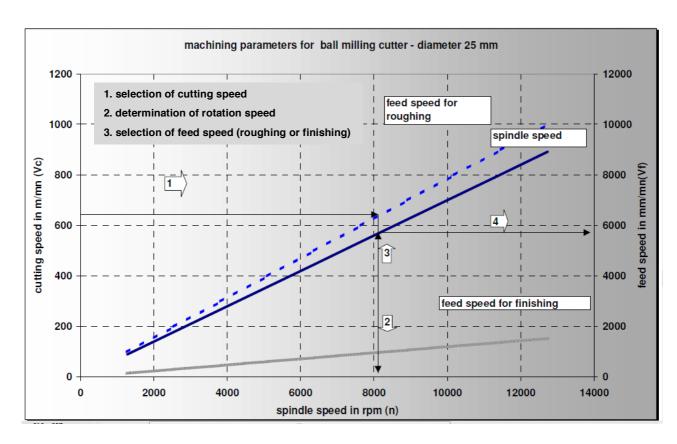
$$\mathbf{n} = \frac{\text{Vc} * 1 000}{\text{D } \Pi} \quad \text{rpm/min}$$

$$Vf = fZ * z * n$$
 mm/min



### **SK2TM75-6**

Two-component compound for master model manufacturing and mold build-up



Vc : Cutting speed (m/min)

• fz : Feed rate per tooth (mm/rpm)

• Z: Number of teeth

D : Tool diameter (mm)

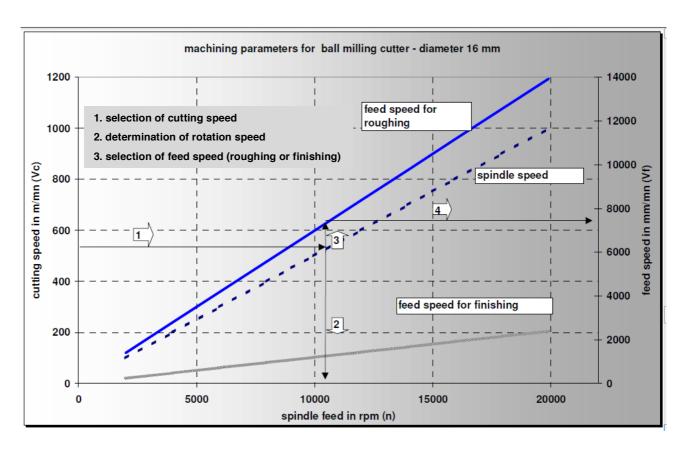
• **n**: R.P.M.

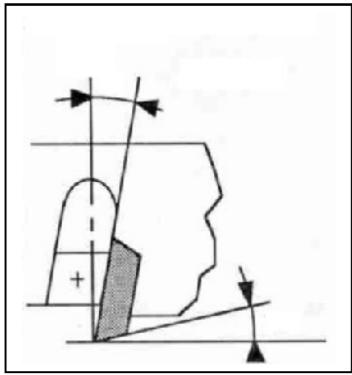
• Vf : Feed speed (mm/min)



### SK2TM75-6

Two-component compound for master model manufacturing and mold build-up





It is recommended to use a tool with following angles:

Υ p : cutting angle 6 to 30° α p : Clearance angle 14°



### **SK2TM75-6**

Two-component compound for master model manufacturing and mold build-up

### HANDLING PRECAUTIONS

Normal health and security precautions should be observed when handling these products:

- Ensure good ventilation
- Wear gloves, safety glasses and protective clothes

For further information, please consult the material safety data sheets.

### STORAGE CONDITIONS

Storage conditions: it is recommended to store at temperatures between +15°C and +25°C in original packing. Use within 9 months of the manufacturing date. Expiry date indicated on the packaging.

#### PACKAGING

Resin	Hardener	Int. diameter of drums
1 x 45 kg	1 x 45 kg	360 mm
1 x 195 kg	1 x 195 kg	570 mm

#### **►** GUARANTEE

The information of our technical data sheet is based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of our products, under their own conditions before commencing with the proposed application. We refuse any guarantee about the compatibility of a product with any particular application. We disclaim all responsibility for damage from any incident which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.



# **RESIN INFUSION MATERIALS**

**RANGE** 

### Back to content

Name	Description	Max. use T°C	Color
AIRVIK-5	Adhesive spray for temporary bonding in resin infusion process	-	Blue
SK2RIM000-1	Resin line clamp	-	-
SK2RIM000-2	High temperature resin infusion connector	260°C	White
SK2RIM000-3	High temperature PA resin infusion connector	180°C	White
SK2RIM000-4	Low temperature resin infusion connector	90°C	White
Squeezee®	Tube clip for control and stop of each resin line separately. Max. Diameter of pinched tube: 15mm	-	-
Squeezer®	Tube clip for control and stop of each resin line separately. Max. Diameter of pinched tube: 25mm	-	-
SK2RIM000-7	Resin infusion valve	70°C	Red and black
SK2RIM000-8	Infusion adapter	180°C	Grey
MTI <sup>®</sup> hose	Vacuum manifold in permeable casting MTI® hose	80°C	Transparent/ White
SK2RIM90-1	Spiral polyethylene tube for low temperature resin infusion process	120°C	Transparent
SK2RIM90-2	Polyethylene tube for low temperature resin infusion process	120°C	White
SK2RIM90-3	L-Fittings for low temperature resin infusion	90°C	White
SK2RIM90-4	T-Fittings for low temperature resin infusion	90°C	White
SK2RIM90-9	Woven resin distribution mesh	90°C	Green-black
SK2RIM90-10	I-fittings for low temperature resin infusion	90°C	White
SK2COM115-1	Two layers combined product	121°C	Yellow with green tracer thread
SK2RIM115-1	Soft high drapable woven resin distribution mesh for low temperature resin infusion process	115°C	Yellow
SK2RIM120-1	Extruded low profile mesh for accelerated distribution	150°C	Green



# **RESIN INFUSION MATERIALS**

**RANGE** 

Name	Description	Max. use T°C	Color
SK2RIM120-2	Low profile mesh for accelerated distribution in low temperature resin infusion process	120°C	Green/ yellow
SK2RIM120-3	Low print belt	120°C	White
SK2RIM120-4	Heavy resin distribution mesh	120°C	Green/Black
SK2RIM120-5	Omega Line for resin inlet	120°C	White
SK2RIM120-6	Resin and vacuum tube	150°C	White
SK2RIM125-1	Sewed tubular mesh	125°C	Yellow
SK2RIM175-1	Polyamide spiral wrap for high temperature resin infusion process	180°C	White
SK2RIM180-1	Soft woven distribution mesh for high temperature resin infusion processes	180°C	White
SK2RIM180-2	Resin distribution tape for high temperature resin infusion processes	180°C	White
SK2RIM180-3	L-Fittings for high temperature resin infusion	180°C	White
SK2RIM180-4	T-Fittings for high temperature resin infusion	180°C	White
SK2RIM180-5	I-Fittings for high temperature resin infusion	180°C	White
SK2RIM180-6	Rigid woven distribution mesh for high temperature resin infusion processes	180°C	White
SK2RIM180-8	X-Fitting for high temperature resin infusion	180°C	White
SK2RIM180-9	Y-Fitting for high temperature resin infusion	180°C	White
SK2RIM180-10	Adapter fittings for high-temperature vacuum infusion	180°C	White
SK2RIM180-11	High temperature resin distribution mesh extruded	180°C	White
SK2RIM250-2	Silicone pressure tubing reinforced with glass fibers for high temperature resin infusion and RTM-process	250°C	Transparent
SK2RIM260-1	High temperature silicone tube for high temperature resin infusion	260°C	White
SK2RIM260-2	High temperature silicone tube reinforced with polyester fibers for high temperature resin infusion and RTM-process	260°C	White



# **RESIN INFUSION MATERIALS**

### **RANGE**

SK2RIM260-3	Heat resistant rigid silicone tube	260°C	White
<u>SK2RIM260-4</u>	High temperature silicone cord for mold sealing in RTM process	260°C	-
SK2RIM260-5	Heat resistant hard silicone tube	260°C	-
SK2RIM260-10	Silicone omega flow line	260°C	White
SK2STK-90	Starter kit for low temperature vacuum resin infusion process	90°C	-
SK2STK-180	Starter kit for high temperature vacuum resin infusion process	180°C	-



**AIRVIK-5** 

Positioning adhesive for core fabrics and materials for compounds

Back to range

#### DESCRIPTION

AIRVIK-5 is a temporary adhesive for positioning fiberglass and carbon fabrics in the manufacture of compound materials (polyester resin, vinyl-ester and epoxy) using the vacuum infusion method. AIRVIK-5 is formulated with raw materials that are perfectly compatible with infusion process resins, and it quickly dissolves in them without affecting the polymerization kinetics, or altering the final mechanical properties of the product. Even an excessive amount of adhesive does not interfere with the interlaminar adhesion of the fabrics.

The amount of AIRVIK-5 to apply depends on the type of surface and weight of the fabric. Non- absorbent surfaces, like Gel Coat or glass resin moulds, only require a small amount of AIRVIK-5. Porous and very absorbent surfaces, like fiberglass fabrics (biaxial, coupled) require around 1 kg for 60-100 m2. In this type of use, a spray can cover a surface of 15-25 m2.

AIRVIK-5 contains a blue colorant, to make it easier to modulate the applied quantity, which then disappears during polymerization.

### INSTRUCTIONS FOR USE

From a distance of approx. 20 or 30 cm, apply an even layer of AIRVIK-5 on one or both of the surfaces being coupled. The time AIRVIK-5 needs to develop all its adhesive properties depends on the environmental conditions and the applied thickness: generally between 30 seconds and a few minutes. After this time, the fabric should be positioned so that it adheres perfectly to the layer beneath, and then repeat the operation for all the subsequent layers that are needed.

The fabric can still be positioned for a few minutes after the first application. The amount of AIRVIK-5 to apply depends on the type of surface and weight of the fabric in question. Use AIRVIK-5 in well ventilated surroundings, using suitable protective equipment.

### PACKAGING

AIRVIK-5 is available in 500 ml spray cans. Minimum order quantity: case of 12 cans.

### STORAGE AND LIFE

If AIRVIK-5 is stored in the original packaging, in dry, ventilated surroundings at a temperature between +15°C and +25°C, it has a life of 12 months from the date of production. DO NOT heat the can up to temperatures above 50°C.

### S T E V I K

## TECHNICAL DATA SHEET

### SK2RIM000-1

**Resin line clamp** 

Back to range

### DESCRIPTION

The clamp can be used in resin infusion process for clamp each hoses separate to stop the flow of resin. The surface is special treated to make the clamp not slippery. The pliers can be adjusted depend of the size of the tube you are using.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: Nickel plated steel

Plier length: 20 cm Flange width: 8 cm Weight: 495 g



Shelf life: not limited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

# **TECHNICAL DATA SHEET**

### **SK2RIM000-2**

### High temperature resin infusion connector

Back to range

### **▶ DESCRIPTION**

High temperature resin infusion connector can be used in resin infusion process for resin inlet or for connection of vacuum manifold. Made of PTFE connector has excellent release properties and can be reused in the process.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: PTFE Color: White Maximum use temperature: 260°C

### **►** SIZE

Tube connection	Spiral tube connection
Ø=12-13mm	Ø=12-13mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



#### **► NOTE**

Other sizes are available on special order.



### SK2RIM000-3

### High temperature PA resin infusion connector

Back to range

### DESCRIPTION

High temperature polyamide infusion connector can be used in resin infusion process for resin inlet or for connection of vacuum manifold.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: Polyamide Color: White Maximum use temperature: 180°C

### **► SIZE**

Tube connection	Spiral tube connection
Ø=12-13mm	Ø=12-13mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



### **▶** NOTE

Other sizes are available on special order.

# **TECHNICAL DATA SHEET**

**SK2RIM000-4** 

### Low temperature resin infusion connector

Back to range

### DESCRIPTION

Low temperature polyethylene infusion connector can be used in resin infusion process for resin inlet or for connection of vacuum manifold.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: PET Color: White Maximum use temperature: 90°C

### **► SIZE**

Tube connection	Spiral tube connection
Ø=12-13mm	Ø=12-13mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



### **► NOTE**

Other sizes are available on special order.



Squeezee®

Back to range

### ► DESCRIPTION

The tube clip of DD-Compound is the solution for adjusting the resin flow and disconnecting resin- and vacuum lines. The tube clip will convince by the easy use and exact dosing of the resin flow. Squeezee® allows disconnecting the resin feed line without much force. The tube clip is suitable for different kind of tubes with an outer diameter up to 15mm. Because of the solid construction, Squeezee® is suitable fort the everyday, industrial use.

### ► TECHNICAL DATA

Material: Steel, aluminum, polyoxymethylen

Resin type: Epoxy, polyester
Outer diameter of resin feed line: up to 15 mm
Color: Steel, blue
Use temperature: 120°C





Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

### **▶** NOTE

Minimum order quatity is 10 pce.



Squeezer®

Back to range

### DESCRIPTION

The tube clip Squeezer® of DD-Compound is the solution for adjusting the resin flow and disconnecting resin- and vacuum lines. The tube clip will convince by the easy use and exact dosing of the resin flow. Squeezer® allows disconnecting the resin feed line without much force. The tube clip is suitable for different kind of tubes with an outer diameter up to 25mm. Because of the solid construction, Squeezer® is suitable fort the everyday, industrial use.

### **▶ TECHNICAL DATA**

Material: Steel, aluminum, polyoxymethylen

Resin type: Epoxy, polyester
Outer diameter of resin feed line: up to 25 mm
Color: Steel, blue
Use temperature: 120°C



Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

### **►** NOTE

Minimum order quatity is 5 pce.

# **TECHNICAL DATA SHEET**

### **SK2RIM000-7**

### Resin infusion valve

Back to range

### DESCRIPTION

Resin infusion valve with two fittings which can connected with tubes with internal diameter of approx. 10 mm (3/8 inches) for stop of resin during the resin inlet.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: POM

Color: Red and black

Maximum use temperature: 70°C



### **► SIZE**

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM000-7RIV	3/8 inch	10mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from +10°C until +30°C in original packing.

#### ▶ NOTE

MOQ is 20 ea.



### **SK2RIM000-8**

Infusion adapter

Back to range

#### DESCRIPTION

SK2RIM000-8 – cosy adapter for resin infusion for connect resin inlet tube and resin infusion connector. Its sharp edge punches easily vacuum bag and matches with infusion connector (SK2RIM000-2, SK2RIM000-3 и SK2RIM000-4), other tube end can be used for connection of vacuum tube or resin inlet tube. The product provides simplified connection and sealing of silicone tube.

It is recommended to apply release agent on adapter surface before using. This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: Aluminum Max. working T: 180°C





#### ► SIZE

Reference	Outside diameter	For tube with inside diameter
SK2RIM000-8RIA	10 mm	10mm PE 7-10mm silicone

Shelf life: unlimited

Storage conditions: it is recommended to store at temperatures between +10°C and +30°C in original packing.

### **▶ NOTES**

MOQ - 1pce.



MTI® hose

Vacuum manifold in permeable casting MTI® hose

Back to range

### **▶** DESCRIPTION

MTI® hose produced by DD|Compound consists of evacuation spiral wrap, non-woven and an air permeable membrane. The sandwich construction leads to optimize the evacuation process and quality. Thus, this tube will minimize costs using the vacuum infusion process. By using of MTI® hose guarantees the complete impregnation of the fabric. The resin allocation can be arranged independently from the tube, so it is possible to manufacture complex fiber parts by vacuum infusion. MTI® hose can be located directly on the fiber part, e.g. at critical points of fields with material accumulation (thicker layers).

### Advantages:

- Less effort for preparing the infusion process
- No resin trap necessary
- Few investment cost
- Visible infusion process
- Minimize of resin consumption
- Resin allocation independent from evacuation hose
- Small molding flanges
- Complete impregnation of the fabric
- More process stability for single piece production and small series
- Minimize material consumption
- High fiber to volume ratio, adjustable through injected resin volume

#### **▶ TECHNICAL DATA**

Material type: Polyethylene spiral tube in membrane casing

Color: Translucent/ white

Use temperature: 80°C

#### ► SIZE

Inside diameter	Packaging
8mm	100m/roll



MTI® hose

Vacuum manifold in permeable casting MTI® hose



Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

### **▶** NOTE

MOQ is 12 rolls.

## TECHNICAL DATA SHEET

### **SK2RIM90-1**

**Spiral wrap** 

Back to range

#### DESCRIPTION

Spiral wrap is produced from PE with additional modification for increasing of protective, isolation and anticorrosive properties. The main application areas are:

- Vacuum manifold function by Resin Infusion Process;
- Association of cables in lines;
- Protection of cables against a friction, mechanical damages;
- Protection of cables against influence of ultra-violet irradiation.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: PE

Color: Translucent

Recommended use temperature: 90°C Maximum use temperature: 120°C

### **► SIZE**

Inside diameter	Outside diameter	Packaging
8mm	10mm	30m/roll
10mm	12mm	30m/roll



Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



**SK2RIM90-1** 

**Spiral wrap** 

**► NOTE** 

MOQ is 1 roll. Other diemeters, lengths and colors are available on special order.

## TECHNICAL DATA SHEET

### **SK2RIM90-2**

### Polyethylene tube

Back to range

### DESCRIPTION

Tube is produced from PE for using in resin infusion process for creation of vacuum channels and resin inlet channels.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: PE

Color: Translucent

Recommended use temperature: 90°C Maximum use temperature: 120°C

### **► SIZE**

Inside diameter	Outside diameter	Packaging
8mm	10mm	30m/roll
10mm	12mm	30m/roll
17mm	19mm	30m/roll



Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **▶** NOTE

MOQ is 1 roll. Other diemeters, lengths and colors are available on special order.

# **TECHNICAL DATA SHEET**

**SK2RIM90-3** 

L-Fitting

Back to range

### DESCRIPTION

Barb coupling L-fitting developed for using in low resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: PET Color: White Maximum use temperature: 90°C

### ► SIZE

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM90-3WH88L	8mm x 8mm	8mm
SK2RIM90-3WH1010L	10mm x 10mm	10mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



### ▶ NOTE

MOQ is 20 ea.

Other sizes: 1/2" x 1/2" and 5/8" x 5/8" are available on special order.

# **TECHNICAL DATA SHEET**

**SK2RIM90-4** 

**T-Fitting** 

Back to range

### **▶** DESCRIPTION

Barb coupling T-fitting developed for using in low resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

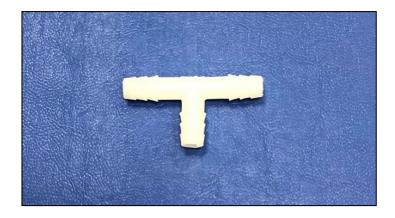
Material type: PET Color: White Maximum use temperature: 90°C

### ► SIZE

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM90-4WH888T	8mm x 8mm x 8mm	8mm
SK2RIM90-4WH101010T	10mm x 10mm x 10mm	10mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



### ▶ NOTE

MOQ is 20 ea.

Other sizes: 1/2" x 1/2" and 5/8" x 5/8" x 5/8" are available on special order.

## TECHNICAL DATA SHEET

**SK2RIM90-9** 

Resin distribution mesh

Back to range

#### DESCRIPTION

SK2RIM90-9 is a resin distribution mesh which is used as a net bleeder with a high flow capacity allowing good air and resin speed. The product has a good elongation. This bleeder is recommended for the vacuum or injection technology with polyester or epoxy resins.

Due to its thickness and weight, this net bleeder reduced the resin wastes. This net is deoiling in order to avoid any contamination in the composite: no transfer.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: PE

Color: Black/Green
Weight: 185 g/m²
Styrene resistant: Yes
Resin speed flow: High
Resin consumption: 452 g/m²

Maximum use temperature: 90°C

#### **► SIZE**

Thickness	Width	Length
1117 μm	2 m	100 m
1117 μm	4 m	100 m

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from +10°C till + 30°C in the original packing.

### **▶** NOTE

MOQ is 1 roll.



SK2RIM90-10

**I-Fitting** 

Back to range

### DESCRIPTION

Barb coupling I-fitting developed for using in low temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: PE
Color: White
Recommended use temperature: 90°C
Maximum use temperature\*: 120°C



#### **► SIZE**

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM90-10WH1010I	10mm x 10mm	9-10mm
SK2RIM90-10WH1616I	16mm x 16mm	15-16mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.

### ▶ NOTE

MOQ is 50 ea.

Other sizes are available on special order.

\* Maximum use temperature should be determined in actual process conditions.

The maximum use temperature depends on the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

### SK2COM115-1

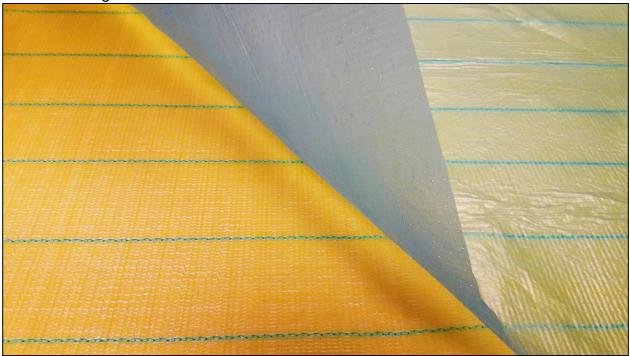
**Combined product** 

Back to range

### **▶** DESCRIPTION

SK2COM115-1 is a two layers combination composed of one infusion resin transport medium in knitted mesh laminated to a release film perforated for infusion. The two layers are joined together with a hot melt synthetic rubber having a permanent tack. The amount of adhesive from 2 gr to 5 gr/sqm does not affect the draining capacity of mesh. The product is intended to optimize the infusion process with surface medium by combining two difficult tasks: laying the release film with respect of patches overlapping and laying up of the mesh always difficult to cut precisely. It permits overlaps without limitation and strengthens the mesh for precise cut without curling edges. SK2COM115-1 provides drainage of the resin between the perforation of the two layers of release film, which ensures the continuity of the resin feeding flow to the laminate under the overlap. Great labor saving can be achieved by having combination of products applied in one operation as opposed to applying one layer at a time. The product can be applied on the top of the carbon or fiberglass fabrics or on the top of a peel ply.

- Excellent resin flow characteristics
- Adaptable for different shapes, corners and contours
- Does not leave unsightly indentations
- Can be used with all resins
- Labor savings



This product is used in various manufacturing processes of parts made of composite materials.

# **TECHNICAL DATA SHEET**

### SK2COM115-1

**Combined product** 

### **▶ TECHNICAL DATA**

**RELEASE FILM:** 

Material release film type: Polyolefin Material thickness: 25 μm Color: Blue

Perforation type of release film: ø 0,5 / each 6,35mm

**DISTRIBUTION MESH:** 

Material mesh type: HDPE Configuration of net: Knitted

Mesh weight: 162 g/m<sup>2</sup> (+/- 5 g/m<sup>2</sup>)
Color: Yellow with green tracer thread

**COMBINED PRODUCT:** 

Area weight: 170 gr/m² (+/- 5 g/m²) Flow capacity: 275 gr/mn (+/- 10%)

Resin trapped: 587 gr/m<sup>2</sup> Recommended use T: 115°C

Maximum use T: 121°C

### **► SIZES**

Thickness	Width	Length
1,5 mm	1450 mm	100 m

Shelf life: unlimited.

Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.

<sup>\*</sup> Maximum use temperature should be determined in actual process conditions. The maximum use temperature depends on the duration at maximum temperature and is process specific, we recommend testing prior to use.



### SK2RIM115-1

### High drapable woven resin distribution mesh

Back to range

### DESCRIPTION

Knitted resin distribution media for assist resin flow through the part during the vacuum assisted resin infusion process by room temperature and low temperature processes till 115 °C. It works well with polyester, vinylester and epoxy resins. The product is highly drapable. SK2RIM115-1 is available with green tracer threads that indicate the roll direction of the mesh. It can also be used as a reusable flexible / high stretch breather for vacuum bagging and consolidation. Flow rate of the resin in the mesh roll direction is about 20% faster compared to the resin flow at 90° to the mesh roll direction. Therefore take note of the mesh direction when using.

This product is used in various manufacturing processes of parts made of composite materials.

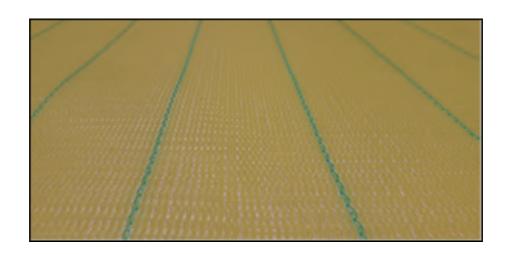
### **► TECHNICAL DATA**

Material type: HDPE

Color: Yellow
Weight: 165g/m²
Maximum use temperature: 115°C
Melting point: 125°C

### ► SIZE

Thickness	Width	Length
1,7mm	1250mm	100m
1,7mm	2500mm	100m





### SK2RIM115-1

High drapable woven resin distribution mesh

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.

### **►** NOTE

MOQ is 1 roll.

## TECHNICAL DATA SHEET

### SK2RIM120-1

Low profile mesh for accelerated distribution of resin

Back to range

### **▶ DESCRIPTION**

Extruded mesh SK2RIM120-1 is designed for efficient distribution of resin with minimization of its waste due to low and tight profile of mesh. It can be used with polyester, vinylester and epoxy resins.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: PP Color: Green

Weight:  $100 \pm 3 \text{ g/m}^2$ 

Configuration of net: Extruded with rhombic cell

Maximum use temperature: 150°C

### **► SIZE**

Thickness	Width	Length
0,9 mm	1,21 m	100 m

### **▶** NOTE

The maximum use temperature is dependent upon the duration at maximum temperature and is process specific. Testing prior to use is recommended.

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.

MOQ is 1 roll.

Other weights and sizes available on request.

# TECHNICAL DATA SHEET

### SK2RIM120-2

Low profile mesh for accelerated distribution of resin

Back to range

### **▶** DESCRIPTION

Extruded mesh SK2RIM120-2 is designed for accelerated distribution of resin with minimization of its waste due to low and tight profile of mesh. It can be used with polyester, vinylester and epoxy resins.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Material type: PP

Color: Green / Yellow / Blue

Weight: 103g/m²
Maximum use temperature: 120°C
Melting point: 125°C

### **► SIZE**

Thickness	Width	Length
0,93mm	1040mm	107m

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

### **▶** NOTE

MOQ is 1 roll.

# **TECHNICAL DATA SHEET**

### SK2RIM120-3

Low print belt

Back to range

### **▶** DESCRIPTION

SK2RIM120-3 is a low print belt that can be used under omega tube on top of infusion mesh, for reducing the print of omega tube on the laminate.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

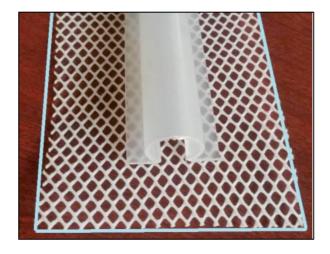
Material type: PE
Color: White
Weight: 400g/m²
Maximum use temperature: 120°C

#### ► SIZE

Thickness	Width
1,8 mm ± 0,2 mm	100mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.



### **▶** NOTE

Other widths are available upon request.

## TECHNICAL DATA SHEET

SK2RIM120-4

### Heavy woven fast resin distribution mesh

Back to range

#### DESCRIPTION

Extruded mesh SK2RIM120-4 is designed for efficient distribution of resin through the part during the vacuum assisted resin infusion process. It can be used with polyester, vinylester and epoxy resins. SK2RIM120-4 is a highly drapable knitted flow medium with a high resin flow speed for most resins.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: HDPE

Color: Green (black on request)

Weight: 250 g/m²
Configuration of net: Extruded
Recommended use temperature: 100°C
Maximum use temperature\*: 120°C

#### ► SIZE

Reference	Width	Length
SK2RIM120-4GN200100	2,00 m	100 m

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.

#### ▶ NOTE

The maximum use temperature is dependent upon the duration at maximum temperature and is process specific. Testing prior to use is recommended.

Other weights and sizes available on request.

\* Maximum use temperature should be determined in actual process conditions. The maximum use temperature depends on the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

### SK2RIM120-5

**Omega flow line** 

Back to range

#### DESCRIPTION

Omega flow line SK2RIM120-5 is used for resin feeding under vacuum bag during resin infusion applications, replacing spiral wraps lines by more stable profile mostly in wind energy as cost effective line. The product incorporates a cavity in omega shape internally to transport resin along the surface and into the part. It is suitable for use with our tubes SK2RIM90-2 and SK2RIM120-6 to distribute resin into the line. It leaves minimal or no mark off on the part when used with low print belt SK2RIM120-3 or flow media with peel ply under it.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: PP/PE Color: White Maximum use temperature\*: 120°C



### ► SIZE

Inside diameter	Length
20mm	4m
23mm	4m

Shelf life: not limited

Storage conditions: it is recommended to use at temperature from -20°C until +30°C.

#### **► NOTE**

We recommend to apply release agent on surface of line to increase lifespan. Other sizes (inside diameters and length) are available on special order.

\* Maximum use temperature should be determined in actual process conditions.

The maximum use temperature depends on the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

### SK2RIM120-6

### Resin and vacuum tube

Back to range

### **▶** DESCRIPTION

This tube is made for using in resin infusion process for creation of vacuum channels and resin inlet channels where working temperature of 120° is requested.

This product is used in various manufacturing processes of parts made of composite materials.

### **▶ TECHNICAL DATA**

Color: White Recommended use temperature: 121°C Maximum use temperature\*: 150°C

### **► SIZE**

Inside diameter	Outside diameter	Packaging
6mm	8mm	30m/roll
10mm	12mm	30m/roll
10mm	16mm	30m/roll

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.



#### ▶ NOTE

MOQ is 1 roll. Other diameters, lengths and colors are available on special order.

\* Maximum use temperature should be determined in actual process conditions. The maximum use temperature depends on the duration at maximum temperature and is process specific, we recommend testing prior to use.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 431 of 460

## TECHNICAL DATA SHEET

### SK2RIM125-1

Sewed tubular mesh

Back to range

#### DESCRIPTION

SK2RIM125-1 is a sewed tubular knitted mesh designed to include a spiral wrap with the outside diameter till 13 mm. Use of this sleeve allows to prevent mark-off of a spiral tube on the surface of the composite laminate. The special "stalk" stitched 2 times reduces labor costs on installation of sleeve by applying of the vacuum, allowing to place easily and precisely a spiral tube into a pleat in the vacuum bagging film.

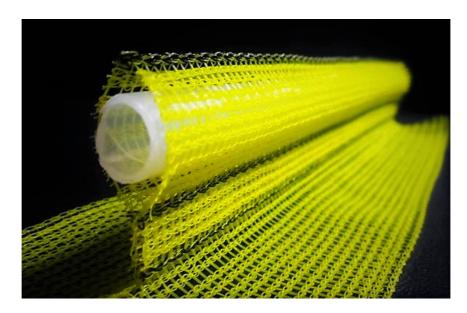
### **▶ TECHNICAL DATA**

Material type: HDPE Color: Yellow Configuration of net: Knitted Maximum use temperature: 125°C

### **►** SIZE

Thickness	Width	Length
0,9mm	1200mm	50m

Shelf life: not limited. Storage conditions: it is recommended to store at temperature from - 20°C till + 30°C in the original packing.



### ▶ NOTE

MOQ is 1 roll. The tube is sold without the spiral. Other sizes are available on special order.

## TECHNICAL DATA SHEET

## SK2RIM175-1

**Spiral wrap** 

Back to range

## **▶ DESCRIPTION**

Spiral wrap is produced from Nylon 6. The main application areas are:

- Vacuum manifold function by Resin Infusion Process;
- Association of cables in lines;
- Protection of cables against a friction, mechanical damages;
- Protection of cables against influence of ultra-violet irradiation.

This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

Material type: Nylon 6
Color: Translucent
Recommended use temperature: 175°C
Maximum use temperature: 180°C

## **► SIZE**

Inside diameter	Outside diameter	Packaging
4mm	5,2mm	30m/roll
9mm	11mm	30m/roll



Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

## **► NOTE**

MOQ is 1 roll. Other sizes and colors are available on special order.



SK2RIM180-1

Woven resin distribution mesh

Back to range

#### DESCRIPTION

The resin distribution media is composed of a warp-knitted basic structure and monofilament created loops. The 2-dimensional flowing aid supports the vacuum infusion process (VIP), because it distributes the resin equally into the component part. Therefore, it can easily be combined with the resin distribution tapes SK2RIM180-2 in order to ensure a much more optimized resin distribution in the component.

The elasticity of this knitted fabric is very advantageous for the drapacity of the resin media. Because of the low weight per unit, low wastages of resin can be realized. SK2RIM180-1 is available with black tracer threads that indicate the roll direction of the mesh. It can also be used as a reusable flexible / high stretch breather for vacuum bagging and consolidation. Flow rate of the resin in the mesh roll direction is about 18% faster compared to the resin flow at 90° to the mesh roll direction. Therefore, take note of the mesh direction when using.

This product is used in various manufacturing processes of parts made of composite materials.

#### ► TECHNICAL DATA

Material type: PES
Color: White
Weight: 100g/m²
Maximum use temperature: 180°C
Melting point: 220°C

### **► SIZE**

Thickness	Width	Length
650µm	1250mm	100m
650µm	2500mm	100m





SK2RIM180-1

Woven resin distribution mesh

Back to range

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.

## **▶** NOTE

MOQ is 1 roll.

## TECHNICAL DATA SHEET

## SK2RIM180-2

## Resin distribution tape

Back to range

### DESCRIPTION

Resin distribution tape is composed of a warp-knitted structure and monofilament-created nooses which are used as flow canal. The tape supports the vacuum infusion process. It can be used on the entry side as resin infusion aid and on the exit side as vacuum canal.

The tape is easy to handle and to attach, adapts to curved component contours and leaves no appreciable marks.

This product is used in various manufacturing processes of parts made of composite materials.

## **► TECHNICAL DATA**

Material type: PES
Color: White
Maximum use temperature: 180°C
Melting point: 220°C

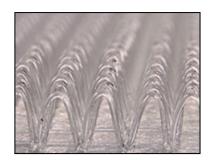
### ► SIZE

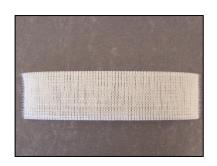
Thickness	Width	Length
3,5mm	20mm	25m
3,5mm	43mm	25m

Shelf life: not limited

S Storage conditions: it is recommended to store at temperatures between -20°C and +30°C in original packing.







## **▶** NOTE

MOQ is 1 roll.

# **TECHNICAL DATA SHEET**

SK2RIM180-3

L-Fitting

Back to range

### DESCRIPTION

Barb coupling L-fitting developed for using in High temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

## ► TECHNICAL DATA

Material type: PA
Color: White
Maximum use temperature: 180°C

#### ► SIZE

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM180-3WH88L	8mm x 8mm	8mm
SK2RIM180-3WH1010L	10mm x 10mm	10mm
SK2RIM180-3WH1212L	12mm x 12mm	12mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



### **► NOTE**

MOQ is 20 ea.

Other sizes: 1/2" x 1/2" and 5/8" x 5/8" are available on special order.

## TECHNICAL DATA SHEET

SK2RIM180-4

**T-Fitting** 

Back to range

### DESCRIPTION

Barb coupling T-fitting developed for using in High temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

## ► TECHNICAL DATA

Material type: PA
Color: White
Maximum use temperature: 180°C

#### ► SIZE

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM180-4WH888T	8mm x 8mm x 8mm	8mm
SK2RIM180-4WH101010T	10mm x 10mm x 10mm	10mm
SK2RIM180-4WH121212T	12mm x 12mm x 12mm	12mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



### **► NOTE**

MOQ is 20 ea.

Other sizes: 1/2" x 1/2" x 1/2" and 5/8" x 5/8" x 5/8" are available on special order.

# **TECHNICAL DATA SHEET**

## SK2RIM180-5

**I-Fitting** 

Back to range

### DESCRIPTION

Barb coupling I-fitting developed for using in High temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

## ► TECHNICAL DATA

Material type: PA
Color: White
Maximum use temperature: 180°C

#### ► SIZE

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM180-5WH88I	8mm x 8mm	8mm
SK2RIM180-5WH1010I	10mm x 10mm	10mm
SK2RIM180-5WH1212I	12mm x 12mm	12mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



### **► NOTE**

MOQ is 20 ea.

Other sizes: 1/2" x 1/2" and 5/8" x 5/8" are available on special order.



## SK2RIM180-6

## Woven resin distribution mesh

Back to range

#### DESCRIPTION

The resin distribution media is composed of a warp-knitted basic structure and monofilament created loops.

Because of the better resistance to vacuum depression, the mesh will be less compacted thus the channel will be more open to let the resin going through faster. The 2-dimensional flowing aid supports the vacuum infusion process (VIP), because it distributes the resin equally into the component part. Therefore, it can easily be combined with the resin distribution tapes SK2RIM180-2 in order to ensure a much more optimized resin distribution in the component. The elasticity of this knitted fabric is very advantageous for the drapacity of the resin media. This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

Material type: PES
Color: White
Weight: 105g/m²
Maximum use temperature: 180°C
Melting point: 220°C

### **► SIZE**

Thickness	Width	Length
700µм	1250mm	40m
700µм	1250mm	100m
700µм	2500mm	40m

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



#### ▶ NOTE

MOQ is 1 roll.

# **TECHNICAL DATA SHEET**

SK2RIM180-8

X-Fitting

Back to range

## DESCRIPTION

Barb coupling X-fitting developed for using in High temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

## **▶ TECHNICAL DATA**

Material type: PA
Color: White
Maximum use temperature: 180°C

### ► SIZE

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM180-8WH1010X	10mm x 10mm	10 mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

## **►** NOTE

MOQ is 20 ea.

## TECHNICAL DATA SHEET

## SK2RIM180-9

Y-Fitting

Back to range

### DESCRIPTION

Barb coupling Y-fitting developed for using in High temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

## **▶ TECHNICAL DATA**

Material type: PA
Color: White
Maximum use temperature: 180°C

### ► SIZE

Reference for order	Outside diameter	For tube with internal diameter
SK2RIM180-9WH121212Y	12mm x 12mm x 12mm	12mm

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



## **▶** NOTE

MOQ is 20 ea.

## TECHNICAL DATA SHEET

## SK2RIM180-10

**Adapter Fittings** 

Back to range

## DESCRIPTION

Barb coupling adapter fittings developed for commutating pipelines of different section in High temperature resin infusion process.

This product is used in various manufacturing processes of parts made of composite materials.

## **▶ TECHNICAL DATA**

Material type: PA
Color: White
Maximum use temperature: 180°C

### **► SIZE**

Reference	Size	Shape
SK2RIM180-10WH12RA8I	Passage from internal Ø 12mm to internal Ø 8mm	I-fitting

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

#### ▶ NOTE

MOQ is 20 ea.

## TECHNICAL DATA SHEET

## SK2RIM180-11

# High temperature resin distribution mesh extruded

Back to range

### **▶** DESCRIPTION

SK2RIM180-11 is an extruded nylon resin distribution mesh for high temperature resin infusion processes. It is compatible with polyester, vinylester and epoxy resins.

This product is used in various manufacturing processes of parts made of composite materials.

## **▶ TECHNICAL DATA**

Material type: Nylon
Color: White
Weight: 160g/m²
Maximum use temperature: 180°C

### **► SIZE**

Thickness	Width	Length
0.60 mm	1000mm	100m

Shelf life: not limited when stored in original packaging.

Storage conditions: it is recommended to store at temperature from +10°C until +30°C in original packing.

## **▶** NOTE

Minimum order quantity is 1 roll.

\* Maximum use temperature should be determined in actual process conditions.

The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, we recommend testing prior to use.

## TECHNICAL DATA SHEET

## SK2RIM250-2

## Silicone Pressure Tubing

Back to range

## **▶ DESCRIPTION**

The tube is produced from silicone rubber with coating and glass fiber. It can be used high temperature RTM processes for creation of vacuum channels and resin inlet channels.

This product is used in various manufacturing processes of parts made of composite materials.

#### **▶ TECHNICAL DATA**

Elastomer: Silicone rubber SIL 701
Colour: Inner tubing: transparent

Coating: transparent

(other colours available on request)

Fabric: Glass fibre

Roll length: 25 metres, loosely bound

## **Elastomer properties**

Hardness (DIN 53505) 70 [°Shore A]

Density (DIN 53749) 1.18

Tensile strength (DIN 53504 S2) 10.0 [N/mm²] Elongation at break (DIN 53504 S2) 500 [%] Compression set (DIN 53517) 53.0

Tear resistance (ASTM D 624 Die B) 24.0 [N/mm²]
Elect. volume resistivity at RT 1015 [Ohm x cm]
Progledown voltage 20. [K//mm²]

Breakdown voltage 20 [KV/mm]
Temperature resistance (continuous) +200 [°C]
Temperature resistance (short-term) + 250 [°C]
Low temperature flexibility -60 [°C]
UV resistance very good

## **Burst pressure**

Product	Dimensions [ID x WT]	Burst pressure (at 20°C)
SK2RIM250-2WH308025	3.00 x 2.50	> 50 [bar]
SK2RIM250-2WH409025	4.00 x 2.50	> 50 [bar]
SK2RIM250-2WH5011025	5.00 x 3.00	> 35 [bar]
SK2RIM250-2WH6012025	6.00 x 3.00	> 30 [bar]
SK2RIM250-2WH7013425	7.00 x 3.20	30 [bar]
SK2RIM250-2WH8014425	8.00 x 3.20	25 [bar]
SK2RIM250-2WH901625	9.00 x 3.50	25 [bar]
SK2RIM250-2WH10018025	10.00 x 4.00	25 [bar]
SK2RIM250-2WH12020025	12.00 x 4.00	24 [bar]
SK2RIM250-2WH13021025	13.00 x 4.00	23 [bar]



## SK2RIM250-2

## **Silicone Pressure Tubing**

SK2RIM250-2WH14023025	14.00 x 4.50	23 [bar]
SK2RIM250-2WH16026025	16.00 x 5.00	22 [bar]
SK2RIM250-2WH19030025	19.00 x 5.50	20 [bar]
SK2RIM250-2WH20031025	20.00 x 5.50	15 [bar]
SK2RIM250-2WH22034025	22.00 x 6.00	15 [bar]
SK2RIM250-2WH25037025	25.00 x 6.00	15 [bar]

(Burst pressure is a statistical, non-binding value which was determined at 20°C using water as a pressure medium.

Higher temperatures and the use of other media can reduce pressure resistance.)

## **▶** USE

Operating mode (guideline only)	Ratio of test pressure to operating pressure	Ratio of burst pressure to operating pressure
Water tubing, maximum operating pressure < 10 bar	1.5	3.0
Tubing for other fluids, solids dissolved in liquids or air and water tubing with an operating pressure > 10 bar	2.0	4.0
Tubing for compressed air and other gases	2.0	4.0
Tubing for liquid media which converts to a gaseous state when pressure reduces (i.e. during venting into the atmosphere).	2.5	5.0
Steam tubing	5.0	10.0

Table: Ratios of test and burst pressure to operating pressure

Source: DIN EN ISO 7751: 1997

#### **Tolerances**

All tubes are manufactured in compliance with DIN 7715.

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

## TECHNICAL DATA SHEET

## SK2RIM260-1

Heat resistant tube

Back to range

### DESCRIPTION

Tube is produced from silicone, heat and chemicals resistant. Tube can be used high temperature resin infusion and RTM processes for creation of vacuum channels and resin inlet channels.

This product is used in various manufacturing processes of parts made of composite materials.

## **▶ TECHNICAL DATA**

Material type: Silicone
Color: Translucent
Maximum use temperature: 260°C

## ► SIZE

Inside diameter	Outside diameter	Packaging
7mm	13mm	25m/roll

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



## **▶** NOTE

MOQ is 1 roll.

Other sizes (wall thicknesses and inside diameters) are available on special order.



## SK2RIM260-2

## Heat resistant reinforced tube

Back to range

### DESCRIPTION

Tube is produced from silicone and reinforced with PES fiber, heat and chemicals resistant. Tube can be used high temperature RTM processes for creation of vacuum channels and resin inlet channels.

This product is used in various manufacturing processes of parts made of composite materials.

## **► TECHNICAL DATA**

Material type: Silicone
Color: Translucent
Maximum use temperature: 260°C

### **► SIZE**

Inside diameter	Outside diameter	Packaging
7mm	13,4mm	25m/roll

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



## **► NOTE**

MOQ is 1 roll.

Other sizes (wall thicknesses and inside diameters) are available on special order.

## TECHNICAL DATA SHEET

## SK2RIM260-3

## Heat resistant tube

Back to range

#### DESCRIPTION

Tube is produced from hard silicone, heat and chemicals resistant. Tube can be used high temperature resin infusion processes for creation of vacuum channels and resin inlet channels.

This product is used in various manufacturing processes of parts made of composite materials.

### **► TECHNICAL DATA**

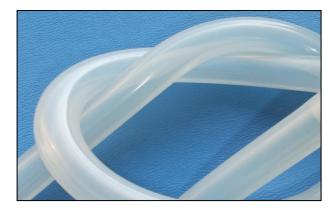
Material type: Silicone
Hardness: 80° Shore A
Color: Translucent
Maximum use temperature: 260°C

### **► SIZE**

Inside diameter	Outside diameter	Packaging
15mm	21mm	25m/roll

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.



## **▶** NOTE

MOQ is 1 roll.

Other sizes (wall thicknesses and inside diameters) are available on special order.

# **TECHNICAL DATA SHEET**

## SK2RIM260-4

## High temperature silicone cord

Back to range

### DESCRIPTION

Cord is produced from silicone with the hardness 60 Shore A, heat and chemicals resistant. Cord can be used as sealant for the molding tool in the RTM process till 260°C.

This product is used in various manufacturing processes of parts made of composite materials.

## **► TECHNICAL DATA**

Material type: Silicone
Hardness: 60 Shore A
Color: Translucent
Maximum use temperature: 260°C

## ► SIZE

Diameter	Packaging
4mm	25m/roll

Shelf life: not limited

Storage conditions: it is recommended to store at temperatures between -20°C and +30 °C in original packing.

## **►** NOTE

MOQ is 1 roll.

## TECHNICAL DATA SHEET

## SK2RIM260-5

## Heat resistant hard silicone tube

Back to range

### DESCRIPTION

The strong version of silicone tube SK2RIM260-5 is produced from hard silicone, heat and chemicals resistant. Tube can be used at high temperature resin infusion for creation of vacuum channels and resin inlet channels outside. It can be used under vacuum bag without collapsing.

This product is used in various manufacturing processes of parts made of composite materials.

### ► TECHNICAL DATA

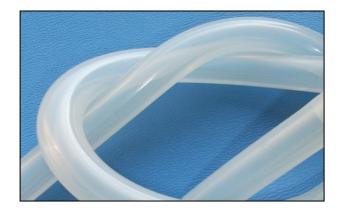
Material type: Silicone
Color: Translucent
Maximum use temperature: 260°C

### **► SIZE**

Inside diameter	Outside diameter	Packaging
7mm	15mm	25m/roll

Shelf life: not limited

Storage conditions: it is recommended to store at temperature from -20°C till + 30°C in the original packing.



### **► NOTE**

MOQ is 1 roll. Other sizes (wall thicknesses and inside diameters) are available on special order.

It remains responsibility of the user to verify that this product meet the requirement of the process applied.

Updated 19.02.18

Page 451 of 460



SK2RIM260-10

Silicone omega flow line

Back to range

## **▶** DESCRIPTION

Silicone omega flow line SK2RIM260-10 is used for resin feeding under vacuum bag during resin infusion applications, replacing spiral wraps lines by more stable reusable profile. The product incorporates a cavity in omega shape internally to transport resin along the surface and into the part. It is suitable for use with our polyethylene tubes SK2RIM90-2 and silicone tubes SK2RIM260-1 to distribute resin into the line. It leaves minimal or no mark off on the part when used with flow media or peel ply under it.

This product is used in various manufacturing processes of parts made of composite materials.

## ► TECHNICAL DATA

Material type: Silicone

Color: White

Maximum use temperature: 260°C

#### ► SIZE

Inside diameter	Length
12mm	15m





SK2RIM260-10

Silicone omega flow line

Shelf life: not limited

Storage conditions: it is recommended to use at temperature from -20°C until +30°C.

## **▶** NOTE

We recommend to apply release agent on surface of line to increase lifespan. Other sizes (inside diameters) are available on special order.



SK2STK-90

## Starter kit for vacuum infusion

Back to range

## DESCRIPTION

This starter kit was specifically developed for beginners in resin infusion technology. It includes all necessary materials, instruments and equipment for resin infusion process (except for vacuum pump) while working with room temperature polymerized resins. The provided material will allow you to make a part superior to 3 m². Operating manual contains a step-by-step guide for processing.

## **▶ COMPLETE SET**

	Product	Description	Image	Quantity
1	Vacuum film SK2VF170-1	Nylon vacuum film, pink, T=170°C, elongation 465%, 50µm x 1,50m x 6m, sheeting		1,50m x 6m
2	Sealant tape SK2ST200-1	Sealant tape, yellow, T=200°C, 3mm x 12mm x 9m		3 rolls
3	Peel ply SK2PP230-1	Polyamide peel ply, white with red stripers, T=230°C, 88g/m², plain, 172 µm x 1,63m x 6m		1,63m x 6m
4	Resin distribution mesh SK2RIM120-1	Low profile mesh for accelerated distribution of resin, green, T=150°C, 1,21m x 6m		1,2m x 6m
5	Double coated adhesive tape SK2AT60-1	Double coated adhesive tape, white, T=60°C, 271 µm x 25mm x 33m		1 roll
6	Spiral wrap SK2RIM90-1	Spiral wrap, white, PE, T=90°C, Ø 10 x 12 mm		30 m



**SK2STK-90** 

## Starter kit for vacuum infusion

7	Tube PE SK2RIM90-2	Tube, PE, white, T=90°C Ø 10 x 12 mm		30 m
8	L-fitting SK2RIM90-3	L-fitting, white, T=90°C, 10mm x 10mm	1	10 pce
9	T-fitting SK2RIM90-4	T-fitting , white, T=90°C, 10mm x 10mm x 10mm	+	10 pce
10	Adhesive Tape SK2AT205-1	Adhesive tape, blue, T=205°C, adhesive type : silicone, carrier type : polyester, 63 µm x 25mm x 66m	0	1 roll
11	Resin infusion connector SK2RIM000-4	PE, T=90°C for spiral Ø= 12mm and inlet tube Ø=12-13mm		2 pce
12	Resin distribution tape SK2RIM180-2	Tape, polyester, white, T=180°C, 20mm x 25m		25 m
13	AIRVIK-5	Spray adhesive AIRVIK-5, 500 ml	AIRVIKS  MIT AN OFFICE OF THE PROPERTY OF THE	1 can
14	Hand roller SK3ROL-1	Roller material: inert plastic Colour: Gray		1 pce

# **TECHNICAL DATA SHEET**

## SK2STK-90

## Starter kit for vacuum infusion

15	Scissors for composite materials SK3CUT-5	Blade length: 125mm, Scissors length: 250mm Weight: 276g	TROTE OF	1 pce
16	Paddle SK3SPA-1WH	Material type: high-density polyethylene Colour: white		2 pce
17	Vacuum trap for resin SK3VAC-5L	Tank volume: 5,6 l, Size: Ø20 cm x 38 cm, Tank material: aluminum, Fitting material: stainless steel, clamping fitting for tube 12mm, quick disconnect plug 1/4"		1 pce
18	Clamp for resin feed line SK2RIM000-1	Material type: steel Plier length: 20cm Flange width: 8cm Weight: 495g		1 pce
19	Resin line clamping device SQUEZEE®	Tube clip for control or stop of feeding line		1 pce
20	Operating manual INST_SK2STK-90_RU	Operating manual in Russian and English with a step-by-step guide and images for each operation	-	1 pce

Storage conditions: it is recommended to store at temperature from +10°C till + 30°C in the original packing.

## **▶** NOTE



SK2STK-90

Starter kit for vacuum infusion

On customer's request the starter kit can be equipped with a resin trap with volume 5 litres: SK3VAC-5L or 15 litres: SK3VAC-15L. For room temperature resin infusion use the starter kit SK2STK-90. For high temperature resin infusion use the starter kit SK2STK-180.

Kit reference	Vacuum trap included	Max temperature of kit materials
SK2STK-90C5L	SK3VAC-5L	90°C
SK2STK-90C15L	SK3VAC-15L	90°C
SK2STK-180C5L	SK3VAC-5L	180°C
SK2STK-180C15L	SK3VAC-15L	180°C



**SK2STK-180** 

## Starter kit for vacuum infusion

Back to range

## **▶** DESCRIPTION

This starter kit was specifically developed for beginners in high temperature resin infusion technology. It includes all necessary materials, instruments and equipment for resin infusion process (except for vacuum pump) while working with room temperature polymerized resins. The provided material will allow you to make a part superior to 3 m². Operating manual contains a step-by-step guide for processing.

## **▶** COMPLETE SET

	Product	Description	Image	Quantity
1	Vacuum film SK2VF205-1	Nylon vacuum film, green, T=205°C, elongation 400%, 50µm x 1,52m x 6m, sheeting		1,52m x 6m
2	Sealant tape SK2ST205-1	Sealant tape, white, T=205°C, 3mm x 12mm x 9m		5 rolls
3	Peel ply SK2PP180-1	Polyester peel ply, white T=180°C, 102g/m², 147 μm x 1,74m x 6m		1,74m x 6m
4	Resin distribution mesh SK2RIM180-1	Resin distribution mesh, T=180°C, 100g/m², 650 μm x 1,2m x 6m		1,2m x 6m
5	Double coated adhesive tape SK2AT200-1	Double coated adhesive tape, white, polyester, 210 µm, T 200°C, 25mm x 50m	are resident to the second sec	1 roll
6	Spiral wrap SK2RIM175-1	Spiral wrap, white, nylon T=175°C, Ø = 9 x 11mm		30 m



**SK2STK-180** 

## Starter kit for vacuum infusion

7	Silicone tube SK2RIM260-1	Tube, PET, white, T=260°C Ø 7 x 12 mm		25 m
8	L-fitting SK2RIM180-3	L-fitting , white, T=180°C, 10mm x 10mm	1	10 pce
9	T-fitting SK2RIM180-4	T-fitting , white, T=180°C, 10mm x 10mm x 10mm	+	10 pce
10	Adhesive Tape SK2AT205-1	Adhesive tape, blue, T=205°C, adhesive type: silicone, carrier type: polyester, 63 µm x 25mm x 66m	0	1 roll
11	Resin infusion connector SK2RIM000-2	PTFE, T=260°C for spiral Ø= 12mm and inlet tube Ø=12- 13mm		2 pce
12	Resin distribution tape SK2RIM180-2	Tape, polyester, white, T=180°C, 20mm x 25m		25 m
13	AIRVIK-5	Spray adhesive AIRVIK-5, 500 ml	ACCURACY AND ACCUR	1 bottle
14	Hand roller SK3ROL-1	Roller material: inert plastic Colour: Gray	0	1 pce

# **TECHNICAL DATA SHEET**

**SK2STK-180** 

## Starter kit for vacuum infusion

15	Scissors for composite materials SK3CUT-5	Blade length: 125mm, Scissors length: 250mm Weight: 276g	THAT U-	1 pce
16	Paddle SK3SPA-1WH	Material type: high-density polyethylene Colour: white		2 pce
17	Vacuum trap for resin SK3VAC-5L	Tank volume: 5,6 l, Size: Ø20 cm x 38 cm, Tank material: aluminum, Fitting material: stainless steel, clamping fitting for tube 12mm, quick disconnect plug 1/4"		1 pce
18	Clamp for resin feed line SK2RIM000-1	Material type: steel Plier length: 20cm Flange width: 8cm Weight: 495g		1 pce
19	Operating manual INST_SK2STK- 180_RU	Operating manual in Russian and English with a step-by-step guide and images for each operation	-	1 pce

Storage conditions: it is recommended to store at temperature from +10°C till + 30°C in the original packing.

## **▶** NOTE

On customer's request the starter kit can be equipped with a resin trap with volume 5 litres: SK3VAC-5L or 15 litres: SK3VAC-15L. For room temperature resin infusion use the starter kit SK2STK-90. For high temperature resin infusion use the starter kit SK2STK-180.

Kit reference	Vacuum trap included	Max temperature of kit materials
SK2STK-90C5L	SK3VAC-5L	90°C
SK2STK-90C15L	SK3VAC-15L	90°C
SK2STK-180C5L	SK3VAC-5L	180°C
SK2STK-180C15L	SK3VAC-15L	180°C