TECHNICAL DATA SHEET

SK6INS
Integral insulation

►DESCRIPTION

Integral insulation also named high-temperature insulation, has many applications in the industry and handcraft. The integral insulation provides high quality insulating properties and good acoustic absorption, as well as resistance to corrosion and erosion, not ignitability, stability by frequently temperature variations, high mechanical firmness.

►APPLICATIONS

Prototype manufacturing:

Numbers of pieces: 1 – 10.
Hand insulation without mould production -> very quick processing
High-grade steel foil strength 0,1 – 0.15 mm.

Small series and pre-series:

Numbers of pieces: 1 – 50
Low costs moulds by using of plastic for moulding
High-grade steel foil strength 0,1 – 0.15 mm

Serial manufacturing:

Numbers of pieces: 50 – 50,000.
Application of long-lasting metal moulds with long-term tool costs amortization
High-grade steel foil strength 0,1 – 0.5 mm

Materials for integral insulation:	insulation material: SK3INS. Thicknesses: 4, 6, 8, 10, 12, 15, 20, 40mm Resilient up to 1200°C
Stainless steel stamping film:	Material 1.4301, 1.4828 will be plot-welded
Temperature range:	up to 1200°C

►INFORMATIONS

Type	Material thickness	Materials
Stainless steel stamping film for manual insulation	0,1 – 0,15mm	1.4301, 1.4828
Stainless steel stamping film for press moulds	0,1 – 0,5mm	1.4301, 1.4828
Insulation material	4,6,8,10,12,15,20,40mm	SK3INS

► AREAS OF APPLICATIONS

Aerospace industry, automotive industry, trucks and cars, motor sport, hobby, mechanical engineering and construction, ship building, boat building, test stands, acoustic insulations, heat insulations, pipe insulations

► EXAMPLES

Manifold
Foil: 0,15mm
Insulation 6mm

Turbines ESD, Model construction:
Foil: 0,1 mm
Insulation: 10 mm

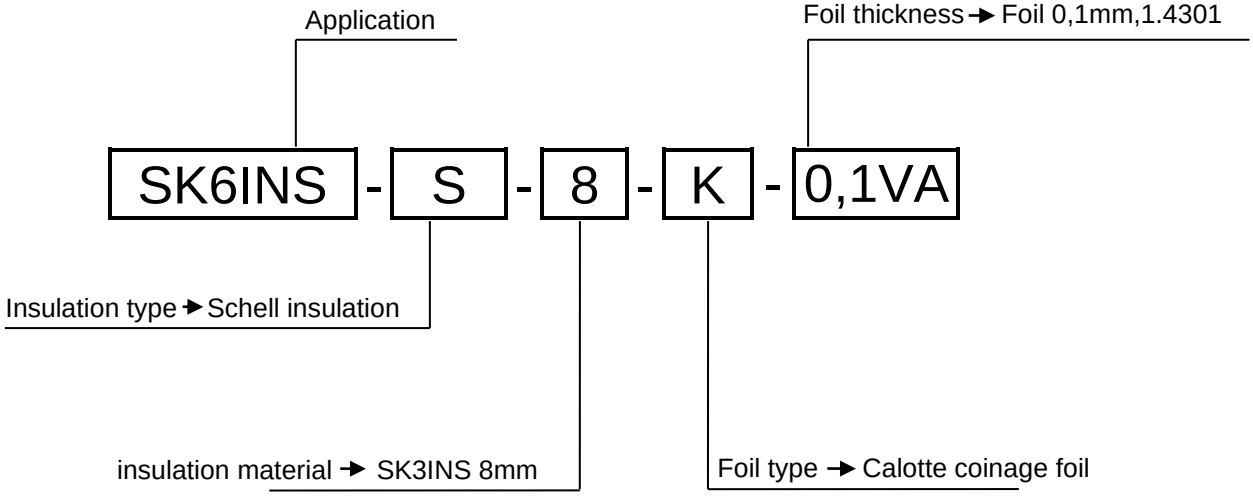
Turbo, motor sport
Foil: 0,15 mm
Insulation: 8 mm

Mechanical engineering
Foil: 0,15 mm
Insulation: 20 mm

▶ APPLICATION OVERVIEW

Integral insulation SK6INS-(x)(y)(z)(j)						
-(x) Manual insulation: H		-(x) Schell insulation: S		-(x) Combi insulation: K		
-(y) SK3INS 4mm: 4	-(y) SK3INS 6 mm: 6	-(y) SK3INS 8mm: 8	-(y) SK3INS 10mm: 10	-(y) SK3INS 15mm: 15	-(y) SK3INS 20mm: 20	-(y) Other materials: 0
-(z) Stamping foil: P		-(z) Calotte coinage foil: K		-(Z) Other foil: A		
-(j) Foil 0,1 mm, 1.4301: 0,1VA		-(j) Foil 0,15 mm, 1.4301: 0,15VA		-(j) Foil 0,1 mm, 1.4828: 0,1V4A		-(j) Foil 0,15 mm, 1.4828: 0,15V4A

▶ ORDER EXAMPLE



► Technical information SK3INS

Due to their chemical composition, SK3INS-products show an excellent resistance to continuous temperatures exceeding 1200 °C. Moreover, SK3INS-materials stand out by a very good chemical resistance, excellent physical properties and a high mechanical strength.
Fibres with a diameter of more than 6 micron are according to the present state of knowledge of labour medicine to be considered as harmless to health.

Our SK3INS-products are made from continuous filament yarns with a diameter of more than 6 micron and consequently exceed the critical diameter range of 3 micron by far.
Due to the special manufacturing process of the fibres all SK3INS-products are free from fault.

Resistant to most chemicals except from hydrofluoric acid, phosphoric acid and strong caustics. Very good insulating properties. No skin irritations by handling.

No health hazards due to size of the fibre more than 6 micron

►TECHNICAL SPECIFICATION

Resistant against temperatures up to	1200°C
Softening temperature	1600 °C
Density	2.65 g/cm3
Raw material (silica glass fibres)	> 99%
Diameter com Filament DIN 53811	9 ± 2µm
Humidity content (105°C / 2h)	<5%
Loss on ignition (1000°C / 1h)	<12%
Shrinkage (1000°C / 4h)	<8%