TECHNICAL DATA SHEET

SK2RS250-1

Highly-elastic cured silicone membrane for vacuum bagging

SK2RS250-1 is a high performance, reusable highly-elastic cured silicone membrane designed for composite manufacturing. It provides the reliable, high quality solution required in vacuum moulding and laminating methods of composite production.
SK2RS250-1 is reusable, providing a cost effective and environmentally-friendly alternative to disposable plastic bags in the VARTM (Vacuum Assisted Resin Transfer Moulding) and SCRIMP (Seemann Composites Resin Infusion Moulding) processes.
The silicone membrane is available in both cured SK2RS250-1 and SK2RS250-2 as uncured version. Cured material has a fine fabric impression to aid removal.
The silicone material of SK2RS250-1 is flame resistant which provides an extra level of safety within your application. The membrane also provides excellent UV and ozone resistance, as well as strong chemical resistance, making it the ideal solution in manufacturing processes of parts made of composite materials.

TECHNICAL DATA	VALUE
Material type	Silicone
Color	Grey or translucent
Cure conditions	116°C for 5 min with 1.4MPa (200psi) of pressure
Maximum use temperature*	250°C

MECHANICAL PROPERTIES OF CURED PRODUCT *	VALUE	TEST METHOD
Hardness	51 Shore A	ASTM D2240
Density	1.15 g/cm^2	ASTM D792
Tensile strength	10 MPa	ASTM D412 DIE C
Elongation at break	600 %	ASTM D412 DIE C
Tear strength	33 KN/m	ASTM 624 DIE B
Compression set	45 % 4 hours at 200°C	ASTM D395 22h at 177°C
Dielectric Strength	20 Kv/mm	
Thermal Expansion	6.5 m/m°C	

* The values are average values for the cured product.

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ADVANTAGES

- Reusable up to 100 times* (less waste so more environmentally friendly, time and money saving)
- Repairable
- Improved ergonomics for operators
- Excellent UV and ozone resistance
- Cost effective alternative to disposable bags
- Good chemical resistance
- Highly durable over a wide temperature range (-40°C to 200°C)
- High tear resistance
- High elongation with low modulus
- Flame resistant
- Will not crease like nylon film
- Translucent sheeting means resin flow can be observed

* The number of cycles depends on application temperature and the aggressiveness of the medium in which the membrane is used.

STORAGE

Shelf Life: for uncured material: 6 months from date of manufacture when stored at 24°C wrapped as supplied.
For cured material: unlimited when stored in original packaging at 22°C.

NOTES

Available thicknesses: from 0.3mm to 3.5 mm.
Standard widths of up to 1500mm
* 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.

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