ELASTOSIL® Film 2030

ELASTOSIL®

Silicone Films

ELASTOSIL® Film 2030 250/xxx is a high-precision silicone film made from cross-linked silicone rubber. High precision in the production allows a constant electrical resistance and good comparative tracking resistance across a broad range of temperatures.
The width is 250 mm and thickness is given in µm (xxx). xxx stands for

- 20 µm
- 50 µm
- 100 µm
- 200 µm
- 300 µm
- 400 µm

Properties

ELASTOSIL® Film has got the outstanding mechanical and physical properties of platinum cured silicone.

- high and selectively gas and water vapor permeable
- high temperature resistant and low temperature flexible
- high dielectric strength combined with a high specific resistivity
- transparent
- constant mechanical and electrical properties over a wide range of temperatures and operating time
- solvent free

Specific features

- Electrically insulating
- Excellent dielectrical properties
- Flexible at low (-40 °C) and high temperatures (+180 °C)
- Gas permeable
- Highly transparent
- Precise

Technical data

Properties Cured

Property	Condition	Value	Method
Dielectric strength	-	80 - 100 kV/mm	-
Volume resistivity	-	10^{14} Ohmcm	IEC 60093
Hardness Shore A	-	27	DIN ISO 48-4
Tensile strength	-	6.0 N/mm²	ISO 37 type 1
Elongation at break	-	450 %	ISO 37 type 1
Compression Set	22 h | 100 °C	5 %	DIN ISO 815-1 type B method A
Gas permeability (selectively)	-	CO_2/N_2 = 10:1	DIN 53536
Water vapor permeability	24 h | 20 µm	3000 g/m²	JIS 1099 A1
Water vapor permeability	24 h | 50 µm	1200 g/m²	JIS 1099 A1
Water vapor permeability	24 h | 100 µm	800 g/m²	JIS 1099 A1
Glass transition temperature	-	-126 °C	-
Operating temperature	-	-45 - 150 °C	-
Tear strength	-	10 N/mm	ASTM D 624 B

These figures are only intended as a guide and should not be used in preparing specifications.

Store in a dry and cool place.

Applications

- Electrics & Electronics
- Electroactive Polymers (EAPs)
- Electronics
- Film & Foil Converting
- Renewable Energies

Application details

- dielectric film in EAP applications for sensors, actuators and generators

- functional membranes
- optical layers / interlayers
- protective films
- functional packaging

Production

ELASTOSIL® Film is manufactured and packed under cleanroom conditions, class 8.
Cutting and packing of film sheets is done in a clean environment, outside the cleanroom.

Processing

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Adhesion

Silicon Film can be glued to a numerous substrates with standard silicone adhesives. Depending on your requirements, ELASTOSIL® E43 can be the glue of choice.
Adhesion can generally be achieved and / or improved by using plasma boding.

Cutting

Silicone Film can be processed by conventional technologies like die cutting, laser cutting or water jet cutting.

Packaging and storage

Packaging

ELASTOSIL® Film is always delivered on a PET carrier, either on rolls or as sheets.
Dimensions of film roll stock:
10 m^2 ≙ 40 running meter x 250 mm width
20 m^2 ≙ 80 running meter x 250 mm width
The roll stock is supplied with an inner diameter of 3"(≙ 7,62 cm)

Film sheets have the dimension 210 mm x 250 mm; delivery in boxes with 20 sheets each.

Storage

Minimum temperature allowed during storage and transportation: 0 °C

Maximum temperature allowed during storage and transportation: 80 °C

QR Code ELASTOSIL® Film 2030

For technical, quality or product safety questions, please contact:

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