

Silopren* Electro 641

Liquid Silicone Rubber

Description

Silopren Electro 641 is a two-component liquid silicone rubber for injection molding processes. Silopren Electro 641 is particularly developed for the manufacturing of cold shrink cable joints and terminations. It can also be used for the manufacturing of housing and weather sheds for many insulators.

Key Features and Typical Benefits

- Very good mechanical properties
- Excellent dielectric behavior over a wide range of temperatures
- Very good tracking and arc resistance
- Advanced ageing behavior and weather resistance
- Fast hydrophobicity transfer and hydrophobicity recovery
- Rapid vulcanization
- Very good tracking and arc resistance
- High stability and flexibility at low temperatures
- Excellent stability to ozone and ultraviolet light
- Not readily combustible, does not melt or drip
- Easy to pigment with LSR Color Pastes

Potential Applications

- cable connectors, fittings and terminals
- suspension and long rod insulators
- post line and pin insulators
- surge arresters
- hollow core insulators
- high voltage plugs

Typical Physical Properties

Typical properties of the rubber:			
		A-component	B-component
Color		Translucent	Translucent
Viscosity, Pa·s $\dot{\gamma}=10s^{-1}$ at 20°C	DIN 53019-1	300	250

Flash point according DIN 53 505 [°C] approx. 77			
The pot-life of the mixture of the two components (closed vessel) at 20°C is three days. Increased temperatures reduce the pot-life.			

<u>Typical properties of the vulcanized rubber:</u> Mixing ratio of components A:B = 1:1. Vulcanization: 10 minutes / 175°C			
Density	DIN 53 479 A	g/cm ³	1.11
Hardness	DIN 53 505	duro	39
Tensile strength	DIN 53 504 S2	N/mm ²	12
Elongation at break	DIN 53 504 S2	%	800
Tear strength	ASTM D 624 die B	N/mm	26
Volume resistivity	DIN 53482	Ω·cm	5·10 ¹⁵
Dielectric strength	DIN 53481	kV/mm	25
Dielectric constant	DIN 53483 (50 Hz)		2.8
Tracking resistance	IEC 60587	Class	1A 4.5

Typical physical properties are average data and are not to be used as or to develop specifications.

Processing Recommendations

Ready-to-use mixtures (of the components A and B) are fed directly to the injection-moulding machine from the original containers by means of a metering and mixing unit. The mixture, consisting of the two components in the ratio 1:1, is injected into the heated mould. At mould temperatures of 100 - 130°C, the addition-crosslinking silicone rubber vulcanizes free of dissociation products within a few minutes. High curing speed and easy demoulding permit the production of large numbers of articles in short cycle times.

Packaging

Silopren Electro 641 LSR is available in 2 x 20 kg pail-kits and 2 x 200 kg drum-kits.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

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