

Silopren* LSR 2030

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Description

Silopren LSR 2030 is a two-component liquid silicone rubber for injection molding processes. Because of its excellent processing properties, it can be considered for use in a wide range of applications.

Key Features and Benefits

Vulcanizates consisting of Silopren LSR 2030 typically are distinguished by the following properties:

- High thermal stability
- Excellent stability and flexibility at low temperatures
- Excellent biocompatibility
- Sterilizable with ethylene oxide, steam and gamma radiation
- Good rubber-like properties
- Long service life at dynamic stress
- High stability to ozone and ultraviolet light
- Outstanding resistance to aging
- Excellent dielectric behavior over a wide range of temperatures
- Not readily combustible, does not melt or drip
- Easily-pigmentable with LSR Color Pastes

Typical Physical Properties

Typical Properties of the Rubber:			
	A Component	B Component	
Appearance		Translucent	Translucent
Viscosity in Pa•s $\gamma = 10 \text{ s}^{-1}$ at 20°C	DIN 53019	350	350

The pot-life of the mixture of the two components (closed vessel) at 20°C is usually three days. Increased temperatures reduce the pot-life.

Typical Properties of the Vulcanizate:

Mixing ratio of components A : B = 1 : 1.

Vulcanization: 10 min. 175°C + 4 hrs 200°C post-cure

Density	DIN 53 479 A	g/cm ³	1.10
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Hardness	DIN 53 505	Shore A	31
Tensile Strength	DIN 53 504 S2	N/mm ²	8.0
Elongation at Break	DIN 53 504 S2	%	800
Tear Strength	ASTM D 624 die B	N/mm	18
Compression Set	ISO 815 (22 h at 175°C)	%	15

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

Potential Applications

Because of its outstanding properties, Silopren LSR 2030 is an excellent candidate to consider for use in the following elastomeric articles:

- Sealing elements
- O-rings
- Stoppers
- Cable accessories

Processing Recommendations

Ready-to-use mixtures (of the components A and B) are fed directly to the injection-molding 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 mold. At mold temperatures of 170 - 230°C, the addition-crosslinking silicone rubber typically vulcanizes, without any dissociation products, within a few seconds. High curing speed and easy demolding can help enable fully automated production of a large number of articles in short cycle times.

Regulatory Compliance

- A representative sample of an analogous product to Silopren LSR 2030 met the requirements of USP Class VI (maximum contact time with human tissue 28 days) and ISO 10993 under Good Laboratory Practices (GLP).
- Listed as UL 94 HB (File No. E205753)
- KTW approved
- WRAS approved product (BS 6920)
- The ingredients are listed in the BfR recommendation XV "Silicones"⁽¹⁾
- Compositionally compliant with 21 CFR 177.2600 – Rubber articles intended for repeated use⁽²⁾

(1) Producer of the final article needs to test and confirm that the final product meets the extraction limits of BfR XV or corresponding EU legislation.

(2) It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600, under their specific manufacturing procedures.

Containers

Silopren LSR 2030 is available in 20 kg pails and 200 kg drums.

Patent Status

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

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