

Silopren* LSR 4650

Liquid Silicone Rubber

Description

Silopren LSR 4650 is a two-component liquid silicone rubber for injection molding processes. The material performance is particularly characterized by high reactivity, low viscosity and high tear strength. The Silopren LSR 4650 enables the production of parts for healthcare devices such as sealing elements, O-rings, diaphragms, ear plugs, bellows, baby teats, respiratory devices, air vent flaps, tube connectors, catheters and mats.

Key Features and Typical Benefits

- High reactivity, lower viscosity, shorter cycle time
- Excellent thermal stability
- Biocompatible
- Sterilizable with ethylene oxide, steam and gamma radiation
- 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 uncured rubber:			
		A Component	B Component
Appearance		translucent	translucent
Viscosity in Pa·s $\dot{\gamma} = 10 \text{ s}^{-1}$ at 20 °C	DIN 53018	450	450
The pot-life of the mixture of the two components (closed vessel) at 20 °C is three days. Increased temperatures reduce the pot-life.			
Typical properties of the cured rubber:			
Mixing ratio of components A : B = 1 : 1. Vulcanisation: 10 min. 175 °C + 4 hrs. 200 °C post cure			
Density	DIN 53 479 A	g/cm ³	1.12
Shore A hardness	DIN 53 505		52
Tensile strength	DIN 53 504 S2	N/mm ²	10.0
Elongation at break	DIN 53 504 S2	%	550
Tear strength	ASTM D 624 die B	N/mm	50
Compression set	DIN 53 517 (22 h at 175 °C)	%	25

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

Regulatory Compliance

- A representative sample of an analogous product to Silopren LSR 4650 met the requirements of USP Class VI (maximum contact time with human tissue 28 days) and ISO 10993 under Good Laboratory Practices (GLP).
- 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.

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.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Contact Information

For product prices, availability, or order placement, contact our customer service at Momentive.com/contact/customer-service

For literature and technical assistance, visit our website at: www.momentive.com

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Silopren* LSR 4650

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