

Silopren* LSR 4050

Silopren LSR for Medical Technology

LSR 4020 TP 3364, LSR 4030, LSR 4040, LSR 4050, LSR 4060, LSR 4070

Product Description **Silopren LSR 4050** is a two-component liquid silicone rubber for injection moulding processes. **Silopren LSR 4050** can be used to produce medical technical articles with high transparency and excellent rubber elastic properties.

Key Performance Properties Vulcanisates consisting of **Silopren LSR 4050** are distinguished by the following properties:

- excellent biocompatibility
- high stability to ozone and ultraviolet light
- neutral odor and taste
- sterilisable with ethylene oxide, steam and gamma radiation
- good transparency
- high thermal stability
- high recovery after puncture
- easy pigmentable with the LSR Colour Pastes.

Approval Tripartite tested

- compliance with US Pharmacopoeia XXII, Class VI (maximum contact time with human tissue 28 days)
- compliance with FDA and BfR Recommendations

Applications Because of the outstanding properties **Silopren LSR 4050** is particularly suitable for the following elastomeric articles: sealing elements, diaphragms, ear plugs, bellows, respiratory devices, vibration dampers, pipette nipples, tube connectors, catheters, parts for medical technical equipment, mats s.o.

Typical Product Data

Typical properties of the rubber:			
		A-part	B-part
Appearance		translucent	translucent
Viscosity in Pa.s $\gamma = 10 \text{ s}^{-1}$ at 20 ° C	DIN 53018	600	600
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 vulcanisate:			
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		51
Tensile strength	DIN 53 504 S2	N/mm ²	10
Elongation at break	DIN 53 504 S2	%	600
Tear strength	ASTM D 624 die B	N/mm	35
Compression set	DIN 53 517 (22 h at 175 ° C)	%	25

Specifications Typical product data should not be used as specifications. Assistance and specifications are available by contacting Momentive performance materials

Containers **Silopren LSR 4050** is available in 20 kg pails and 200 kg drums.

Instructions for Use Ready-to-use mixtures (of the components A and B) are fed directly to the injection-moulding machine from the original drums 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 170 - 230 ° C , the addition-crosslinking silicone rubber vulcanises free of dissociation products within a few seconds. High curing speed and easy demoulding permit fully automated production of large numbers of articles in short cycle times.

All parts moulded from **Silopren LSR 4050** should be post-cured. During post-curing, it is mainly volatile polymer constituents, which evaporate, leading to a loss of weight and shrinkage.

Some of the applications with **Silopren LSR 4050** must comply with applicable regulations, such as those of the FDA, BfR s.o.

Handling and Safety Material Safety Data Sheets are available upon request from Momentive performance materials.

Storage and Warranty Period Correctly stored in its original unopened container at room temperature (max. 27°C). **Silopren LSR 4050** has a shelf life of 540** days from the date of manufacturing. Containers, which have been opened, must be kept tightly closed afterwards.

**Please see also use-before/expiry date on product label and certificate.



PRINCIPAL LOCATIONS – Regional Information

North America	World Headquarters 187 Danbury Road Wilton, CT 06897, USA	T 800.295.2392	F 607.754.7517
Latin America	Rodovia Eng. Constância Cintra, Km 78,5 Itatiba, SP – 13255-700, Brazil	T +55.11.4534.9650	F +55.11.4534.9660
Europe, Middle East, Africa and India	D-51368 Leverkusen Germany	T 00.800.4321.1000 T +31.164.293.276	F +31.164.241.750
Pacific	Akasaka Park Building - 5-2-20 Akasaka Minato-ku, Tokyo 107-6112 Japan	T +81.3.5544.3100	F +81.3.5544.3101

CUSTOMER SERVICE CENTERS

North America	Charleston, WV 25314, USA E cs-na.silicones@momentive.com		
	<ul style="list-style-type: none"> Specialty Fluids UA, Silanes, Resins, and Specialties RTV Products-Elastomers Sealants and Adhesives & Construction 	T 800.523.5862 T 800.334.4674 T 800.332.3390 T 877.943.7325	F 304.746.1654 F 304.746.1623 F 304.746.1623 F 304.746.1654
Latin America	E cs-la.silicones@momentive.com		
	<ul style="list-style-type: none"> Argentina & Chile Brazil Mexico & Central America Venezuela, Ecuador, Peru, Colombia, & Caribbean 	T +54.11.4862.9544 T +55.11.4534.9650 T +52.55.5899.5135 T +58.212.285.2149	F +54.11.4862.9544 F +55.11.4534.9660 F +52.55.5899.5138 F +58.212.285.2149
Europe, Middle East, Africa and India	E cs-eur.silicones@momentive.com	T 00.800.4321.1000 T +31.164.293.276	F +31.164.241750
Pacific	E cs-ap.silicones@momentive.com		
	<ul style="list-style-type: none"> Japan China Korea Singapore 	T +81.276.20.6182 T +86.21.5050.4666 (ext. 1523) T +82.2.6201.4600 T +65.6220.7022	
Worldwide Hotline	Worldwide Web www.momentive.com	T 800.295.2392 T +607.786.8131	F +607.786.8309

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