Technical Data Sheet

Silopren* LSR 4050

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Description

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

Key Features and Benefits

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

Typical Physical Properties

Typical properties of the rubber:			
		A-part	B-part
Appearance		translucent	translucent

Viscosity in Pa.s gamma = 10 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

Potential 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.

Regulatory Compilance

- A representative sample of an analogous product to Silopren LSR 450 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)

- Tested according Eur. Pharmacopia VI 3.1.9

(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
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