Technical Data Sheet

Silopren™ LSR 2050

Description

Silopren LSR 2050 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 Typical Benefits

Vulcanizates consisting of Silopren LSR 2050 typically are distinguished by the following properties:

- High thermal stability
- Excellent stability and flexibility at low temperatures
- 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 $\gamma = 10\ s^{-1}$ at 20°C	DIN 53019	600	600

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.

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Typical Properties of the Vulcanizate:

Mixing ratio of components A : B = 1 : 1.
Vulcanization: 10 min. 175°C + 4 hrs 200ºC 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	ISO 815 (22 h at 175°C)	%	25

Typical data are average data and actual values may vary.
Typical data shall not be used as product specifications.

Potential Applications

Because of its outstanding properties, Silopren LSR 2050 is an excellent candidate to consider for use in the following elastomeric articles:

- Sealing elements
- O-rings
- Diaphragms
- Keypads
- Pacifiers
- Baby teats
- Diving masks
- Nose pads
- Vibration dampers
- Air vent flaps
- Switch covers
- Pressure cooker parts
- Cable connectors
- … and many more.

Processing Recommendations

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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 Compilance

- Listed as UL 94 HB (File No. E205753)
- KTW approved
- In compliance with the requirements of the DVGW Working sheet W 270
- 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 2050 is available in 2x20 kg pail kits and 2x200 kg drum kits.

Patent Status

Standard copy to come

Product Safety, Handling and Storage

Standard copy to come

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Limitations
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