

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 $\dot{\gamma} = 10 \text{ s}^{-1}$ 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.

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	1.12
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

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

- 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

Limitations

Standard copy to come

Contact Information

Email

commercial.services@momentive.com

Telephone

Americas	Latin America	EMEAI- Europe, Middle East, Africa & India	ASIA PACIFIC
+1 800 295 2392 Toll free* +704 805 6946 Direct Number	Brazil +55 11 4534 9650 Direct Number	Europe +390510924300 Direct number	China 800 820 0202 Toll free +86 21 3860 4892 Direct number
All American countries	Mexico +52 55 2169 7670 Direct Number	India, Middle East & Africa + 91 44 71212207 Direct number *All Middle Eastern countries, Africa, India,	Japan +81 3 5544 3111 Direct number Korea +82 2 6201 4600

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

DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY “SUPPLIER”), ARE SOLD SUBJECT TO SUPPLIER’S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED

HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER'S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier's materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier's products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier's standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

*Silopren™ ist ein Markenname der Momentive Performance Materials Inc.

The use of the "™" symbol designates registered or unregistered trademarks of Momentive Performance Materials Inc. or its affiliated companies. Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.