

Silopren™ LSR 2730

Product Description

Silopren LSR 2730 is a self-bonding liquid silicone rubber for injection molding which offers primer-less bonding to a wide range of substrates including metals and engineering plastics, but without adhesion to the mold. Full bond strength is reached after a short post cure (e.g., 1h at 100°C) or by longer storage at room temperature. This makes Silopren LSR 2730 liquid silicone rubber a good option to consider for cost-efficient manufacturing of high part quantities in integrated processes such as multi-component injection molding or insert-molding.

Key Features and Typical Benefits

- Primer-less adhesion to many substrates
- High temperature stability
- Excellent stability and flexibility at low temperatures
- Very good ageing behavior and weathering resistance
- Good dielectric and mechanical properties
- Easy to pigment with LSR color-pastes
- Fast curing

Typical Physical Properties

Typical properties of the uncured rubber			
		A-component	B-component
		Translucent	Translucent
Viscosity Pa•s $\dot{\gamma} = 10s^{-1}$ at 20 °C	DIN 53018	430	465
The mechanical properties were measured on test sheets (2mm). These were produced by mixing the components A:B in 1:1 ratio and curing the resulting mixture 10min at 175°C.			
Density	DIN 53 479 A	g/cm ³	1.10
Hardness	DIN 53 505	Shore A	31
Tensile Strength	DIN 53 504 S2	N/mm ²	8,1
Elongation at break	DIN 53 504 S2	%	750
Tear Strength	ASTM D 624 die B	N/mm	14
Modulus 100%	DIN 53 504 S2	N/mm ²	0,6
Modulus 200%	DIN 53 504 S2	N/mm ²	1,0
Modulus 300%	DIN 53 504 S2	N/mm ²	1,6
Compression set (22h@125 °C)	DIN ISO 815	%	15
Compression set (22h@150 °C)	DIN ISO 815	%	19

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

Potential Applications

Silopren LSR 2730 liquid silicone rubber is an excellent candidate to consider for the manufacturing of parts where engineering plastics and elastomeric materials need to be combined in an over-molding process, such as sealing elements, membranes, vibration-dampening elements, spatula or other hard-soft combinations.

Typical examples

- Overmolded seals of sensor housings
- Overmolded seal in high voltage connectors and charging devices in New Energy Vehicles (NEV)

General Considerations for Use

Silopren LSR 2730 liquid silicone rubber is a kit-matched product. As such, the batch numbers on the A component and B component should be identical and the material should be mixed at a ratio of 1:1 (by weight) to promote typical work time (potlife), cure time, and final cured properties. Pumping and meter-mixing systems for Silopren LSR 2730 liquid silicone rubber and appropriate injection molding machines are available from a number of manufacturers, most of whom will provide a complete integrated system (exclusive of the mold itself). When starting up a new mold the first molding cycles should be carried out with a standard Silopren LSR such as Silopren LSR 20xx or with the use of a release agent.

Packaging

Silopren LSR 2730 TP 3823 liquid silicone rubber currently is available in 2x20 kg pail kits and 2x200 kg drum kits.

Regulatory Compliance Considerations

Silopren LSR 2730 liquid silicone rubber does not meet the compositional requirement for 21 CFR §177.2600.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the 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.

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