

Silopren™ LSR 2740 TP3783

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Liquid Silicone Rubber

Description

Silopren LSR 2740 TP 3783 is a two-component liquid silicone rubber for injection molding, which offers primer-less adhesion to a wide range of substrates including metals and engineering plastics, but without adhesion to the mold. Full bond strength is generally reached after a short post cure (e.g. one hour at 100 degrees Celsius) or by longer storage at room temperature. This makes **Silopren LSR 2740** 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 Benefits

- Primer-less adhesion to many substrates
- No special mold treatment needed (final adhesion builds up with time)
- High temperature stability
- Excellent stability and flexibility at low temperatures
- Favorable aging behavior and weathering resistance
- Good dielectric and mechanical properties
- Easy to pigment with LSR color-pastes

Typical Physical Properties

| | | | | |
|---|--|--|---------------|---------------|
| <u>Typical Properties of the Uncured Material</u> | | | | |
| | | | A-part | B-part |

| | | | | |
|--|---------------------|-------------------|-------------|-------------|
| Appearance | | | translucent | translucent |
| Viscosity $\gamma=10s^{-1}$ at 20°C | DIN 53 018 | Pa.s | 610 | 670 |
| The pot-life of the mixture of the components (closed vessel) at 20 degrees Celsius is three days. Increased temperatures reduce the pot-life. | | | | |
| <u>The mechanical properties of Silopren LSR 2740 liquid silicone rubber</u> Mixing Ratio of Components A:B=1:1. Vulcanization: 10min at 175°C. | | | | |
| Density | DIN 53 479 A | g/cm ³ | 1.12 | |
| Hardness | DIN 53 505 | Shore A | 38 | |
| Tensile strength | DIN 53 504 S2 | N/mm ² | 9.3 | |
| Elongation at break | DIN 53 504 S2 | % | 700 | |
| Tear strength | ASTM D 624 die B | N/mm | 20 | |
| Compression set (22 h at 120°C) | DIN ISO 815 | % | 15 | |
| Compression Set (22h at 150°C) | DIN ISO 815 | % | 25 | |

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

Potential Applications

Silopren LSR 2740 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.

Processing Considerations

Silopren LSR 2740 liquid silicone rubber is a kit-matched product. As such, work time (pot-life), cure time, and final cured properties can only be assured if the batch numbers of the A component and B component are identical and the material is mixed at a ratio of 1:1 (by weight). Pumping and meter-mixing systems for **Silopren LSR 2740** liquid silicone rubber and appropriate injection molding machines are available from a number of manufacturers, most of whom will provide a complete integrated systems. When starting up a new mold, the first molding cycles (approximately 1000) should be carried out with a standard Silopren LSR grade, such as Silopren LSR 20xx. It's also possible to use a fluoro-containing release agent. For further information please contact Momentive Performance Materials.

Packaging

Silopren LSR 2740 liquid silicone rubber is available in 2x20 kg pail kits and 2x200 kg drum kits.

Regulatory Compliance:

- Compositionally compliant with 21 CFR 177.2600 – Rubber articles intended for repeated use(1)

(1) 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.

Storage

Store in the original, unopened containers at room temperature (maximum 27 degrees Celsius).

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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