Liquid Silicone Rubber Product Selection Guide

EXPAND YOUR POSSIBILITIES
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Dow’s portfolio of liquid silicone rubber includes specific LSR formulations, marketed under the SILASTIC™, DOWSIL™, XIAMETER™ and EVOLV3D™ brands. Injection-molding grades, coating grades, a 3D printing grade, electrical grades and optical grades are available, as are LSR color masterbatches.

This guide provides detailed technical information on our wide range of LSRs, which even include options that meet requirements for food contact, water contact and infant care applications.

Why LSR?

LSRs offer a “magic combination” of properties, process and performance to help extend design possibilities for small parts, intricate designs, high precision and overmolding:

- Two-part; 1:1 mix ratio
- Easily mixed
- Quickly heat-cured

Key features of cured LSRs include good mechanical properties and excellent resistance to weathering, extreme temperatures and aging.

Fluoro liquid silicone rubber (F-LSR) combines excellent fuel and oil resistance with LSR processing economy.

Put us on your team

Dow can provide expert help recommending the right LSR for your application, collaborate to develop custom LSR formulations, and provide broad technical service and support.
ADDRESSING MEGATRENDS WITH LSRs FOR A MORE SUSTAINABLE WORLD

Dow is committed to delivering solutions that address world challenges as we aspire to redefine the role of business in society. With our world-leading operations performance, we address natural resource efficiency, supply chain optimization, environmental stewardship, and human health and safety. And just as important to us is delivering breakthrough innovations that enable our customers to address the needs of a rapidly changing world.

WATER SCARCITY – SAVING WATER
LSRs formulated to comply with food & water regulations

MOBILITY –

ENERGY DEMAND – OPTIMIZING DELIVERY

Low energy losses
Low flammability
Supply & distribution of renewable energy
High reliability
High hydrophobicity
Watertightness for underground cables
Long lifetime

Safety
Sustained performance in harsh environments
Reliable sealing performance
UV stability
Enables fuel/energy efficiency
Helps create new engine designs
By working together across the value chain, we look to create shared value and accelerate the transition to a sustainable planet with solutions that deliver sustainability performance improvements to conserve resources, support more efficient manufacturing processes, and help consumers live healthier and more convenient lives.

Liquid silicone rubber is a high-performing, long-lasting material that can reliably perform in a variety of harsh environments, enabling the development of products that are safe, adaptable and more sustainable; produce less waste; and require less energy for processing. Here are just some of the many ways LSRs are contributing to everyday life in an ever-more-challenging world.

**ENABLING CONNECTIVITY & SAFETY FOR PEOPLE & VEHICLES**

- Design flexibility enabling innovation
- Long-lasting – photothermal stability
- Safety – resistance to flammability
- Environmental seal – water/dust resistance
- Lightweight

**WELL-BEING – PROTECTING PEOPLE**

- Insulation
- Versatile, cost-effective & sustainable 3D printing LSR
- Comfortable & safe for long-term skin contact
- Anti-stain

Long-lasting & less waste
Transparent & lightweight
Safer than glass
Safe, with no by-products during vulcanization
Colorless, odorless, tasteless
Can be sterilized for multiple uses

- Insulation
- Versatile, cost-effective & sustainable 3D printing LSR
- Comfortable & safe for long-term skin contact
- Anti-stain

Long-lasting & less waste
Transparent & lightweight
Safer than glass
Safe, with no by-products during vulcanization
Colorless, odorless, tasteless
Can be sterilized for multiple uses

Design flexibility enabling innovation
Long-lasting – photothermal stability
Safety – resistance to flammability
Environmental seal – water/dust resistance
Lightweight
**GENERAL-PURPOSE LSRs**

SILASTIC™ RBL-9200 Series LSR elastomers and XIAMETER™ RBL-2004 Series LSR elastomers are general-purpose injection-molding materials suitable for a wide range of typical silicone rubber applications.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available products</th>
<th>Key features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-20 LSR</td>
<td>Unique rheology</td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-30 LSR</td>
<td>Improved flowability</td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-40 LSR</td>
<td>Longer pot life</td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-50 LSR</td>
<td>Translucent</td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-60 LSR</td>
<td>Food and water contact</td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-20 LSR</td>
<td>Low compression set (non-post-cured)</td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-30 LSR</td>
<td>Translucent</td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-40 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-45 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-50 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-60 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-65 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-70 LSR</td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

- Use of “-” indicates data not available and/or not applicable.
- ASTM: American Society for Testing and Materials. Materials were tested according to Dow Corporate Test Methods (CTMs), which in most cases are similar to the ASTM standard(s) listed. Copies of CTMs are available upon request.

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<th>Available products</th>
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<tr>
<td></td>
<td>SILASTIC™ RBL-9200-30 LSR</td>
<td>Improved flowability</td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-40 LSR</td>
<td>Longer pot life</td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-50 LSR</td>
<td>Translucent</td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ RBL-9200-60 LSR</td>
<td>Food and water contact</td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-20 LSR</td>
<td>Low compression set (non-post-cured)</td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-30 LSR</td>
<td>Translucent</td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-40 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-45 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-50 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-60 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-65 LSR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIAMETER™ RBL-2004-70 LSR</td>
<td></td>
</tr>
</tbody>
</table>

**Regulatory Compliance**

<table>
<thead>
<tr>
<th>Available products</th>
<th>Food contact</th>
<th>Drinking water</th>
<th>Infant care</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILASTIC™ RBL-9200-20 LSR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SILASTIC™ RBL-9200-30 LSR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SILASTIC™ RBL-9200-40 LSR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SILASTIC™ RBL-9200-50 LSR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SILASTIC™ RBL-9200-60 LSR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SILASTIC™ RBL-9200-65 LSR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SILASTIC™ RBL-9200-70 LSR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Food contact**:

- Formulated to meet BfR XV recommendation.
- Formulated to meet FDA 21 CFR 177.2600.
- Certified according to KTW Guideline.
- Water Regulations Advisory Scheme approved product.
- Approved according to DVGW Technical Standard W270.

**Infant care**:

- Materials have been assessed according to: Commission Directive 93/11/EEC of March 15th, 1993 concerning the release of the N-nitrosamines and N-nitrosatable substances from elastomer or rubber teats and soothers; FDA guideline 7117.11 Volatile N-Nitrosamines in Rubber Baby Bottle Nipples - action levels; 21 CFR 177.2600. U.S. Food and Drug Administration (FDA) regulation for rubber articles intended for repeated food contact; Bundesinstitut fuer Risikobewertung (BfR) Recommendation XV on silicone for food contact both Volatile Matter and Extraction Tests.

It remains the customer’s responsibility to ensure Dow products are suitable for customer’s intended use and comply with all laws and regulations applicable to such use. Please contact Dow to confirm that the material produced in your area meets the local regulations.

**Legend**

Throughout this guide:
- Use of “-” indicates data not available and/or not applicable.
- ASTM: American Society for Testing and Materials. Materials were tested according to Dow Corporate Test Methods (CTMs), which in most cases are similar to the ASTM standard(s) listed. Copies of CTMs are available upon request.
## NON-POST-CURE (NPC) LSRs

SILASTIC™ NPC 9300 Series LSRs are low-volatility, high-strength silicone elastomers formulated to meet the requirements of food and infant care regulated applications without the need for post-cure.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available products</th>
<th>Key features</th>
<th>Shore A hardness ASTM D2240</th>
<th>Elongation % ASTM D412</th>
<th>Tensile strength, MPa ASTM D412</th>
<th>Tear strength, kN/m ASTM D5034 DE B</th>
<th>Specific gravity ASTM D792</th>
<th>Viscosity @ 10s⁻¹, Pa.s CTM 1094</th>
<th>Part A</th>
<th>Part B</th>
<th>Food contact</th>
<th>Regulatory compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Infant care (soothers, teats)</td>
<td>SILASTIC™ NPC 9300-40 LSR</td>
<td>• Low volatile content • Eliminates post-cure operations</td>
<td>40</td>
<td>560</td>
<td>8.8</td>
<td>34</td>
<td>1.11</td>
<td>190</td>
<td>190</td>
<td>0.25</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• Food contact (cookware, valves, diaphragms)</td>
<td>SILASTIC™ NPC 9300-50 LSR</td>
<td>• Enables streamlined processes and part design flexibility</td>
<td>50</td>
<td>500</td>
<td>8.9</td>
<td>45</td>
<td>1.11</td>
<td>190</td>
<td>190</td>
<td>0.25</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• General consumer articles</td>
<td>SILASTIC™ NPC 9300-70 LSR</td>
<td>• High strength • Unique rheology • Low modulus(1)</td>
<td>67</td>
<td>320</td>
<td>9.6</td>
<td>27</td>
<td>1.12</td>
<td>220</td>
<td>210</td>
<td>0.25</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• Infant care</td>
<td>SILASTIC™ NPC 9310-50 LSR</td>
<td>• Low volatile content • Eliminates post-cure operations</td>
<td>50</td>
<td>500</td>
<td>9.5</td>
<td>41</td>
<td>1.10</td>
<td>1.90</td>
<td>0.25</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

(1)Only applicable for SILASTIC™ NPC 9310-50 LSR. 
Food contact: Formulated to meet BfR XV recommendation. Formulated to meet FDA 21 CFR 177.2600.

Infant care: Materials have been assessed according to Commission Directive 93/11/EEC of March 15th, 1993 concerning the release of the N-nitrosamines and N-nitrosatable substances from elastomer or rubber teats and soothers; FDA guideline 717.11 Volatile N-Nitrosamines in Rubber Baby Bottle Nipples - action levels; 21 CFR 177.2600. U.S. Food and Drug Administration (FDA) regulation for rubber articles intended for repeated food contact; Bundesinstitut fuer Risikobewertung (BfR) Recommendation XV on silicone for food contact both Volatile Matter and Extraction Tests.

It remains the customer’s responsibility to ensure Dow products are suitable for customer’s intended use and comply with all laws and regulations applicable to such use. Please contact Dow to confirm that the material produced in your area meets the local regulations.

## LOW-TEMPERATURE-CURE (LTC) LSRs

SILASTIC™ LTC 9400 Series LSRs are low-temperature-curing, high-strength elastomers that enable fast temperature activation in a wide temperature range.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available products</th>
<th>Key features</th>
<th>Cure Shore A hardness ASTM D2240</th>
<th>Elongation % ASTM D412</th>
<th>Tensile strength, MPa ASTM D412</th>
<th>Tear strength, kN/m ASTM D5034 DE B</th>
<th>Specific gravity ASTM D792</th>
<th>Viscosity @ 10s⁻¹, Pa.s CTM 1094</th>
<th>Part A</th>
<th>Part B</th>
<th>BfR(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Co-molding of low-melting plastics</td>
<td>SILASTIC™ LTC 9400-40 LSR</td>
<td>• Low-temperature curing • Fast deep-section cure at standard elevated temperatures</td>
<td>40</td>
<td>510</td>
<td>9.7</td>
<td>30</td>
<td>1.11</td>
<td>180</td>
<td>170</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>• Overmolding of the most sensitive components</td>
<td>SILASTIC™ LTC 9400-50 LSR</td>
<td>• Low-temperature curing • Fast deep-section cure at standard elevated temperatures</td>
<td>50</td>
<td>460</td>
<td>8.9</td>
<td>40</td>
<td>1.11</td>
<td>160</td>
<td>160</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>• Consumer goods articles</td>
<td>SILASTIC™ LTC 9402-50 LSR</td>
<td>• Low-temperature curing • Fast deep-section cure at standard elevated temperatures</td>
<td>50</td>
<td>450</td>
<td>8.9</td>
<td>40</td>
<td>1.11</td>
<td>200</td>
<td>185</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>• Thick-walled connectors and seals</td>
<td></td>
<td>• Oil-filled: 2 wt % • Low compression set</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Electrical connector seals/gaskets</td>
<td></td>
<td>• Typical dosing: 1-3% • Enhanced reactivity at a wide temperature range</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Additive to be used with SILASTIC™ LTC 9400 Series LSRs</td>
<td>SILASTIC™ LTC 9400 Acceleration Additive</td>
<td>• Curing profile can be adapted to specific reactivity requirements • Faster cure in thick-walled articles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

(1) NPC 10 min @ 120°C. (2) Formulated to meet BfR XV recommendation.

Cure conditions denote parameters used to test rubber properties and do not reflect actual cure time in the injection-molding process.
OIL-BLEEDING LSRs
A selection of oil-filled, self-lubricating LSRs is available as SILASTIC™ 920x-yy Series LSRs and SILASTIC™ CV 920x-yy Series LSRs. For both, x = oil content and yy = durometer hardness. The two series of LSRs offer a choice of standard and controlled-volatility grades.

Typical applications | Available products | Key features | Cure | Shore A hardness ASTM D2240 | Elongation, % ASTM D412 | Tensile strength, MPa ASTM D412 | Tear strength, kN/m ASTM D624 DIE B | Specific gravity ASTM D792 | Compression set (22 hr @ 175°C), % ASTM D395 | Viscosity @ 10s⁻¹, Pas ASTM D7046 | NPC(1) | Part A | Part B
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
• Automotive connector seals  
• Electrical connections  
• Weatherpack seals  
SILASTIC™ 9204-20 LSR | • Oil filled  
• Low compression set  
• Unique rheology  
• Opaque | 20 4 | 660 6.4 | 19 1.11 | 25 | 185 | 160
SILASTIC™ 9206-20 LSR | 20 6 | 690 5.2 | 11 1.10 | 21 | 185 | 170
SILASTIC™ 9202-30 LSR | 30 2 | 570 5.9 | 17 1.11 | 16 | 185 | 155
SILASTIC™ 9204-30 LSR | 30 4 | 520 5.8 | 42 1.11 | 14 | 180 | 165
SILASTIC™ 9206-30 LSR | 30 6 | 530 5.5 | 39 1.11 | 18 | 190 | 160
SILASTIC™ 9204-35 LSR | 35 4 | 530 6.5 | 39 1.12 | 16 | 195 | 170
SILASTIC™ 9206-40 LSR | 40 6 | 490 6.6 | 35 1.12 | 22 | 170 | 170
SILASTIC™ 9201-50 LSR | 50 1 | 400 7.2 | 40 1.12 | 21 | 180 | 140
SILASTIC™ 9202-50 LSR | 50 2 | 390 6.7 | 44 1.12 | 24 | 185 | 150
SILASTIC™ 9204-50 LSR | 50 4 | 380 6.1 | 41 1.12 | 26 | 195 | 150
SILASTIC™ CV 9204-20 LSR | • Oil filled  
• Controlled volatility (D4-D8 <350 ppm)  
• Opaque | 23 4 | 840(4) 8.7h | 20 1.11 | 26(n) | 260 | 200
SILASTIC™ CV 9204-30 LSR | 30 4 | 790(4) 9.4h | 19 1.13 | 19(n) | 220 | 200
SILASTIC™ CV 9204-40 LSR | 40 3 | 840(4) 11.9h | 29 1.14 | 28(n) | 335 | 290
SILASTIC™ CV 9204-50 LSR | 50 2 | 590(4) 10.9h | 39 1.15 | 25(n) | 250 | 250

(1)10 min @ 120°C. (2)10 min @ 175°C. (3)Compression set after 70 hr @ 150°C. (4)JIS 6249 (Japanese Industrial Standard).

Cure conditions denote parameters used to test rubber properties and do not reflect actual cure time in the injection-molding process.

OIL-RESISTANT LSRs
SILASTIC™ 9390 Series LSRs provide good oil resistance in an off-white, injection-molding-grade elastomer for a range of air- and fluid-sealing applications.

Typical applications | Available products | Key features | Cure | Shore A hardness ASTM D2240 | Elongation, % ASTM D412 | Tensile strength, MPa ASTM D412 | Tear strength, kN/m ASTM D624 DIE B | Specific gravity ASTM D792 | Compression set (70 hr @ 150°C), % ASTM D395 | Oil immersion (70 hr @ 150°C), % volume change ASTM D471 | NPC(1) | ASTM 1 | IRM 903
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
• Oil-resistant applications  
• Seals, O-rings, diaphragms  
SILASTIC™ 9390-50 LSR | • Good oil resistance  
• Low compression set  
• Off-white | 50 | 460 | 6.2 | 15 | 1.37 | 130 | 13 | 4 | 35
SILASTIC™ 9390-70 LSR | (1) | 68 | 240 | 8.0 | 16 | 1.47 | 60 | 20 | 5 | 32

(1)5 min @ 176°C.


Cure conditions denote parameters used to test rubber properties and do not reflect actual cure time in the injection-molding process.
**FLUORO LIQUID SILICONE RUBBERS (F-LSRs)**

SILASTIC™ brand F-LSRs are designed for use in harsh environments involving fuel, oil or aggressive fluids. With xx = durometer hardness, these F-LSRs are available as the fully (100%) fluorinated SILASTIC™ FL-xx-9201 Series. These F-LSRs combine the fluid resistance of fluorosilicone rubber with the processing ease of liquid silicone rubber using standard injection-molding equipment.

### Typical applications
- Solvent-resistant and chemically resistant parts
- Gaskets and membranes for demanding sealing applications

<table>
<thead>
<tr>
<th>Available products</th>
<th>Key features</th>
</tr>
</thead>
</table>
| SILASTIC™ FL 30-9201 F-LSR | • Fully (100%) fluorinated  
• Excellent resistance to fuels and oils  
• Retain elasticity at low temperatures (Tg -68°C)  
• Light yellow |
| SILASTIC™ FL 40-9201 F-LSR | [3]  
• 30 550 9.4 16 1.44 21 |
| SILASTIC™ FL 60-9201 F-LSR | [3]  
• 60 220 8.5 14 1.42 21 |

### Fluid resistance (168 hr), volume swell %

<table>
<thead>
<tr>
<th>Available products</th>
<th>IRM 903 (150°C)</th>
<th>RME Biodiesel (49°C)</th>
<th>Ref F Diesel (40°C)</th>
<th>Ref C (60°C)</th>
<th>FAM B (60°C)</th>
<th>Dexron III (125°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILASTIC™ FL 30-9201 F-LSR</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>25</td>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td>SILASTIC™ FL 40-9201 F-LSR</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>23</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>SILASTIC™ FL 60-9201 F-LSR</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>21</td>
<td>29</td>
<td>1</td>
</tr>
</tbody>
</table>

Cure conditions denote parameters used to test rubber properties and do not reflect actual cure time in the injection-molding process.

[1] 10 min @ 120°C  
[2] 10 min @ 120°C + 4 hr @ 200°C  
[3] 10 min @ 175°C  
[4] 10 min @ 175°C + 4 hr @ 200°C.
LSRs FOR AIRBAG COATING & SEALING

LSRs for airbag coating applications include a selection of low- to medium-viscosity products designed for use on flat-fabric (cut-and-sewn) and one-piece-woven (OPW) airbag designs. An engineered SILASTIC™ seam sealant is available for use on cut-and-sewn airbags.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available products</th>
<th>Key features</th>
<th>Cure</th>
<th>Shore A hardness ASTM D2240</th>
<th>Elongation, % ASTM D412</th>
<th>Tensile strength, MPa ASTM D412</th>
<th>Tear strength, kN/m ASTM D624 DIE B</th>
<th>Specific gravity ASTM D792</th>
<th>Viscosity @ 10s⁻¹, Pa.s CTM 0050</th>
<th>Part A</th>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Flat fabric</td>
<td>SILASTIC™ LCF 3600 Coating</td>
<td>• Unprimed adhesion to polyamide and polyester fabric • Low coefficient of friction • Excellent flame-extinguishing</td>
<td>(%)</td>
<td>45</td>
<td>180</td>
<td>3.8</td>
<td>5.5</td>
<td>1.07</td>
<td>30</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ LCF 4630 Coating</td>
<td>• Low stiffness • Excellent adhesion to polyamide and polyester fabric</td>
<td>(%)</td>
<td>27</td>
<td>660</td>
<td>5.0</td>
<td>8.1</td>
<td>1.06</td>
<td>45</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>• Seam sealant</td>
<td>SILASTIC™ SE 6777 LSR US</td>
<td>• Excellent adhesion to silicone coated fabric • Mechanical resistance • High elongation • Room temperature cure</td>
<td>(%)</td>
<td>14</td>
<td>1,300</td>
<td>4.8</td>
<td>–</td>
<td>1.21</td>
<td>250</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>• One-piece woven (OPW)</td>
<td>SILASTIC™ LCF 3760 Coating</td>
<td>• Very high elongation; low elastic modulus • Unprimed adhesion to polyamide and polyester fabric • Low coat weights</td>
<td>(%)</td>
<td>9</td>
<td>1,450</td>
<td>5.7</td>
<td>12.0</td>
<td>1.05</td>
<td>170</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ DY-35-3115</td>
<td>• Unprimed adhesion to polyamide and polyester fabric</td>
<td>(%)</td>
<td>25</td>
<td>940</td>
<td>6.0</td>
<td>13.0</td>
<td>–</td>
<td>200</td>
<td>330</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SILASTIC™ 3715 Topcoat</td>
<td>• Low coefficient of friction; prevents blocking</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

Cure conditions denote parameters used to test rubber properties and do not reflect actual cure time in the coating process.

1 (%) 3 min @ 196°C. 2 (%) 24 hr @ 25°C. 3 (%) 10 min @ 120°C.
LSRs FOR SLEEVING APPLICATIONS & GENERAL-PURPOSE COATING

LSRs for sleeving applications provide a range of elastomers suitable for electrical and thermal protection of wires and cables. These LSRs are available in low to medium viscosities to meet a wide range of processing requirements.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available products</th>
<th>Key features</th>
<th>Cure conditions</th>
<th>Part A</th>
<th>Part B</th>
<th>BfR(3)</th>
<th>FDA(4)</th>
<th>Food contact</th>
</tr>
</thead>
</table>
| • Fabric coating     | XIAMETER™ RBL-9050-30P LSR | • Very low viscosity  
                       • Unprimed adhesion to glass  
                       • Suitable for dip coating  
                       • Transparent  
                       • Two part; 10:1 mix ratio | 10 min @ 120°C | 47 | 150 | 6.4 | 2.5 | 1.03 | 3 |
| • Electrical wire sleeving | XIAMETER™ RBL-9050-50P LSR | 5 min @ 171°C | 48 | 160 | 7.5 | 3.8 | 1.03 | 5 |
| • Fabric coating     | SILASTIC™ RBL-9252-150P LSR | • Good clarity  
                       • Unprimed adhesion to glass  
                       • Formulated to meet BfR XV and FDA 21 CFR 177.2600  
                       • Translucent  
                       • Two part; 10:1 or 1:1 mix ratio | | 37 | 340 | 4.4 | 5.0 | 1.07 | 15 | ✓ ✓ |
| • Electrical wire sleeving | SILASTIC™ RBL-9252-250P LSR | | 33 | 450 | 5.0 | 7.0 | 1.09 | 25 | ✓ ✓ |
| • Suitable for food contact | SILASTIC™ RBL-9252-500P LSR | | 36 | 480 | 6.0 | 10.0 | 1.11 | 55 | 75 | ✓ ✓ |
| • Electrical wire sleeving | SILASTIC™ RBL-9252-900P LSR | | 38 | 520 | 6.6 | 15.0 | 1.12 | 100 | 100 | ✓ ✓ |
| • Insulation wrap    | SILASTIC™ LSR 9151-200P | • Good flame retardancy  
                       • Off-white  
                       • Two part; 10:1 mix ratio | | 40 | 200 | 1.3 | 1.26 | 25 | |
| • Protective clothing | SILASTIC™ LSR 9451-1000P | | 30 | 310 | 1.0 | 1.23 | 85 | |
| • Electrical wire sleeving | SILASTIC™ 590 EU LSR | • Good flame resistance  
                       • UL listed (V0) | | 35 | 570 | 7.0 | 11.0 | 1.23 | 80 | 90 |

Cure conditions denote parameters used to test rubber properties and do not reflect actual cure time in the coating process.

Food contact:
(3)Formulated to meet BfR XV recommendation. (4)Formulated to meet FDA 21 CFR 177.2600.
LSR FOR 3D PRINTING

EVOLV3D™ LC 3335 Liquid Silicone Rubber is a 1:1 mix LSR designed for Liquid Additive Manufacturing (LAM) 3D printing. It combines the performance benefits of silicone rubber with the design and processing advantages of additive manufacturing.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available product</th>
<th>Key features</th>
</tr>
</thead>
</table>
|                      | EVOLV3D™ LC 3335 LSR | • Low viscosity  
                          • Unique rheology  
                          • Allows part design flexibility  
                          • Enables achievement of mechanical properties closely matching those of molded LSR  
                          • Direct transfer into high-volume injection-molding processes  
                          • High-performance silicone elastomer parts – customized and/or new designs |

<table>
<thead>
<tr>
<th>Cure conditions</th>
<th>Shore A hardness</th>
<th>Elongation, %</th>
<th>Tensile strength, MPa</th>
<th>Tear strength, kN/m</th>
<th>Specific gravity</th>
<th>Viscosity @ 10s⁻¹, Pa.s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>48</td>
<td>480</td>
<td>9.5</td>
<td>45</td>
<td>1.12</td>
<td>160</td>
</tr>
<tr>
<td>Part B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Cure conditions: 3D printed – IR heat cured. (2) Test specimen printed in dimensions specified by referred ASTM method.
ELECTRICAL-GRADE LSRs

Electrical-grade LSRs provide a selection of specialty elastomers for power transmission and distribution applications.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available products</th>
<th>Key features</th>
<th>Cure conditions</th>
<th>Part A</th>
<th>Part B</th>
<th>Volume resistivity, ohm.cm</th>
<th>Tracking resistance, kV</th>
</tr>
</thead>
</table>
| Hollow-core insulators | SILASTIC™ HV 1541-10P LSR | • Very low viscosity  
• Suitable for casting  
• Room temperature cure  
• Excellent tracking resistance  
• Two part; 9:1 mix ratio  
• Gray | (1) 10 min @ 120°C + 2 hr @ 120°C | 34 | 420 | 5.3 | 14 | 1.10 | 7 | 7 | 1.00E+15 | 1A4.5 |
| Hollow-core insulators | SILASTIC™ HV 1551-55P LSR | • Low viscosity  
• Suitable for low-pressure molding  
• Excellent tracking resistance  
• High tear strength  
• Clear and gray | (2) 10 min @ 120°C | 42 | 470 | 6.8 | 31 | 1.09 | 60 | 65 | 1.00E+15 | 1A4.5 |
| Hollow-core insulators  
Solid-core insulators | SILASTIC™ HV 1551-95P LSR | • Medium viscosity  
• Excellent tracking resistance  
• High elongation  
• Clear and gray | (3) 20 min @ 120°C | 44 | 620 | 8.0 | 31 | 1.08 | 100 | 90 | 1.00E+15 | 1A4.5 |
| Hollow-core insulators  
Solid-core insulators | SILASTIC™ HV 1552-30 LSR | • Low viscosity  
• Suitable for low-pressure molding  
• Excellent tracking resistance  
• Excellent processing  
• Fast vulcanization  
• Blue gray | (4) 20 min @ 105°C | 32 | 450 | 6.0 | 23 | 1.13 | 20 | 20 | 1.00E+15 | 1A4.5 |
| High-voltage cable accessories  
Terminations  
Cold shrink | SILASTIC™ HV 1510-40 LSR | • Suitable for injection molding  
• Good tracking resistance  
• High elongation  
• Clear | (5) 10 min @ 120°C | 40 | 860 | 10.5 | 38 | 1.13 | 240 | 240 | 2.00E+15 | 1A3.5 |
| Medium-voltage cable accessories  
Terminations  
Cold shrink | SILASTIC™ HV 1519-40 LSR | • Suitable for injection molding  
• Good tracking resistance  
• High elongation  
• Gray | (6) 10 min @ 120°C | 38 | 880 | 10.4 | 34 | 1.13 | 260 | 260 | 5.00E+14 | 1A3.5 |
| Cold shrink  
Electrical stress-control devices  
Electrically conductive moldings | SILASTIC™ HV 1523-30 LSR | • Low volume resistivity  
• Suitable for injection molding  
• High elongation  
• Black | (7) 10 min @ 120°C + 4 hr @ 200°C | 36 | 680 | 6.0 | 30 | 1.04 | 380 | 420 | 8.00E+01 | – |

Cure conditions denote parameters used to test rubber properties and do not reflect actual cure time in the molding process.

MOLDABLE OPTICAL SILICONES

New-generation LED lighting concepts with DOWSIL™ silicone optical resins help increase design freedom and energy efficiency from high-performance buildings to outdoor-area illumination to advanced automotive styling. Compared to organic options, these specialty silicone liquid resins can maintain outstanding optical properties without yellowing with age under high temperatures.

<table>
<thead>
<tr>
<th>Typical applications</th>
<th>Available products</th>
<th>Key features</th>
<th>Shore A hardness ASTM D2240</th>
<th>Elongation, % ASTM D412</th>
<th>Tensile strength, MPa ASTM D412</th>
<th>Transmission (3.2 mm thickness)/reflectance</th>
<th>Refractive index (633 nm), %</th>
<th>Volume resistivity, ohm.cm</th>
<th>Agency listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Optical components</td>
<td>DOWSIL™ MS-0002 Moldable Silicone</td>
<td>• Fast curing • Translucent</td>
<td>65</td>
<td>270</td>
<td>9.0</td>
<td>Transmission: • 75% @ 450 nm • 89% @ 760 nm</td>
<td>–</td>
<td>–</td>
<td>• UL 94 • UL 746</td>
</tr>
<tr>
<td>• Primary or secondary lenses, light pipes, light guides, and other optic devices</td>
<td>DOWSIL™ MS-1002 Moldable Silicone</td>
<td>• Lighter than glass • Good mold flow; excellent feature reproduction • Optically clear</td>
<td>72</td>
<td>80</td>
<td>11.2</td>
<td>Transmission: • 89% @ 380 nm • 91% @ 450 nm • 94% @ 760 nm</td>
<td>1.41</td>
<td>1.00E+18</td>
<td>• UL 94 • UL 746A • UL 746C(f1)</td>
</tr>
<tr>
<td></td>
<td>DOWSIL™ MS-1003 Moldable Silicone</td>
<td>• Lighter than glass • Good mold flow; excellent feature reproduction • Optically clear</td>
<td>51</td>
<td>325</td>
<td>5.5</td>
<td>Transmission: • 91% @ 380 nm • 92% @ 450 nm • 93% @ 760 nm</td>
<td>1.41</td>
<td>1.00E+16</td>
<td>• UL 94 • UL 746A • UL 746C(f1)</td>
</tr>
<tr>
<td>• Secondary optics such as lens clusters, light guides, light pipes and free-form collimators</td>
<td>DOWSIL™ MS-4007 Moldable Silicone</td>
<td>• High light transmittance with low light attenuation coefficient • Lighter than glass • Excellent surface feature replication • Optically clear</td>
<td>70</td>
<td>100</td>
<td>11.7</td>
<td>Transmission: • 91% @ 380 nm • 93% @ 450 nm • 94% @ 760 nm</td>
<td>1.41</td>
<td>1.00E+14</td>
<td>• UL 94 • UL 746 • UL 746C(f1)</td>
</tr>
<tr>
<td>• Secondary optics, lens clusters, light pipes, light guides and free-forms collimators</td>
<td>DOWSIL™ MS-4002 Moldable Silicone</td>
<td>• High light transmittance with low light attenuation coefficient • Lighter than glass • Excellent surface feature replication • Smooth surface feeling • Optically clear</td>
<td>84</td>
<td>60</td>
<td>11.7</td>
<td>Transmission: • 89% @ 380 nm • 92% @ 450 nm • 93% @ 760 nm</td>
<td>1.42</td>
<td>1.00E+14</td>
<td>• UL 94 • UL 746A • UL 746C(f1)</td>
</tr>
<tr>
<td>• LED lamp and luminaire applications</td>
<td>DOWSIL™ MS-4022 Moldable Silicone</td>
<td>• High light transmittance with low attenuation coefficient • High thermal stability • Smooth, low-tack plasticlike surface • Optically clear</td>
<td>85</td>
<td>52</td>
<td>11.0</td>
<td>Transmission: • 87% @ 380 nm • 90% @ 450 nm • 93% @ 760 nm</td>
<td>1.42</td>
<td>1.00E+16</td>
<td>• UL 94 • UL 746A • UL 746C(f1)</td>
</tr>
<tr>
<td>• White reflector in lighting applications</td>
<td>DOWSIL™ MS-2002 Moldable Silicone</td>
<td>• High reflectance • High-temperature stability • UV aging resistance • White reflecting</td>
<td>84</td>
<td>65</td>
<td>8.6</td>
<td>Reflectance: • 97% @ 450 nm • 98% @ 555 nm • 99% @ 630 nm</td>
<td>NA</td>
<td>3.00E+15</td>
<td>• UL 94 • UL 746A • UL 746C(f1)</td>
</tr>
</tbody>
</table>

All values indicated above for cured materials are after 1 hr post-curing at 150°C.
LSR color masterbatches consist of heat-stable, cadmium-free coloring pigments dispersed in crosslinkable fluid. The XIAMETER™ brand options from Dow are specifically designed and formulated for addition to LSRs using dedicated metered mixing equipment. All are translucent LSR with 2% color masterbatch.

<table>
<thead>
<tr>
<th>Available products</th>
<th>Description</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>XIAMETER™ RBL-9105 White Color Masterbatch</td>
<td>Provides shade similar to RAL 9010</td>
<td><img src="image" alt="Appearance" /></td>
</tr>
<tr>
<td>XIAMETER™ RBL-9105 Green Color Masterbatch</td>
<td>Provides shade similar to RAL 6025</td>
<td><img src="image" alt="Appearance" /></td>
</tr>
<tr>
<td>XIAMETER™ RBL-9105 Red Color Masterbatch</td>
<td>Provides shade similar to RAL 2002</td>
<td><img src="image" alt="Appearance" /></td>
</tr>
<tr>
<td>XIAMETER™ RBL-9105 Gray Color Masterbatch</td>
<td>Provides shade similar to RAL 7031</td>
<td><img src="image" alt="Appearance" /></td>
</tr>
<tr>
<td>XIAMETER™ RBL-9105 Blue Color Masterbatch</td>
<td>Provides shade similar to RAL 5019</td>
<td><img src="image" alt="Appearance" /></td>
</tr>
<tr>
<td>XIAMETER™ RBL-9105 Black Color Masterbatch</td>
<td>Provides shade similar to RAL 9011</td>
<td><img src="image" alt="Appearance" /></td>
</tr>
<tr>
<td>XIAMETER™ RBL-9105 Red Iron Oxide Color Masterbatch</td>
<td>Provides shade similar to RAL 3013</td>
<td><img src="image" alt="Appearance" /></td>
</tr>
</tbody>
</table>

The color swatches shown here are computer-generated and are not necessarily a precise representation of the actual masterbatch colors. The RAL color reference index is the only specification to which we refer.
Dow has manufacturing, warehousing, customer service, and science and technology resources strategically located worldwide to meet your needs for high-performance LSRs. Rely on our materials innovation, application expertise, broad technical services, and global supply capabilities with local support.

For more information about our LSR materials and capabilities, visit consumer.dow.com/si-rubber.