SILASTIC™ RBL-9200-50 Liquid Silicone Rubber

50 Shore A hardness, 1 to 1 mix Liquid Silicone Rubber (LSR) designed for liquid injection molding

Features & Benefits
- Unique rheology
- Improved flowability
- Longer pot-life
- Excellent process performance enables short cycle times
- Food contact: Formulated to meet requirements of BfR XV recommendation and of FDA 21 CFR 177.2600
- Drinking water: KTW, W270 and WRAS approved

Applications
SILASTIC™ RBL-9200-50 Liquid Silicone Rubber is a translucent, general purpose LSR, formulated to give excellent process performance due to improved rheology and longer pot-life.

This product can be used in a wide range of applications, including but not limited to:
- General consumer goods articles
- Food contact (e.g. cooking ware, valves, diaphragms)
- Water approved applications (e.g. shower heads)
- Grommets, gaskets
- Infant care (e.g. baby nipples)
- Sport & leisure articles (e.g. diving masks)

Typical Properties
 Specification Writers: These values are not intended for use in preparing specifications.

<table>
<thead>
<tr>
<th>Test</th>
<th>Property</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM D2240</td>
<td>Hardness</td>
<td>Shore A</td>
<td>50</td>
</tr>
<tr>
<td>ASTM D412</td>
<td>Elongation</td>
<td>%</td>
<td>570</td>
</tr>
<tr>
<td>ASTM D412</td>
<td>Tensile Strength</td>
<td>MPa</td>
<td>9.0</td>
</tr>
<tr>
<td>ASTM D624 B</td>
<td>Tear Strength</td>
<td>kN/m</td>
<td>42</td>
</tr>
<tr>
<td>ASTM D792</td>
<td>Specific Gravity</td>
<td></td>
<td>1.13</td>
</tr>
</tbody>
</table>

1. ASTM: American Society for Testing and Materials. Materials were tested according to Dow Corporate Test Methods (CTM), which in most cases are similar to the ASTM standard(s) listed above. Copies for CTMs are available on request.
2. Cure Condition: 10 min at 120°C, no post-cure
Typical Properties (Cont.)

<table>
<thead>
<tr>
<th>Test</th>
<th>Property</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTM 1094</td>
<td>Viscosity ($10^5$ Pa·s$^{-1}$)</td>
<td>Pa·s</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Part A</td>
<td>Pa·s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part B</td>
<td>Pa·s</td>
<td></td>
</tr>
<tr>
<td>ASTM D395</td>
<td>Compression set 3</td>
<td>%</td>
<td>14</td>
</tr>
<tr>
<td>ISO 4662</td>
<td>Rebound Resilience 4</td>
<td>%</td>
<td>77</td>
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<tr>
<td>ASTM D149</td>
<td>Dielectric strength 4</td>
<td>kV/mm</td>
<td>23</td>
</tr>
<tr>
<td>ASTM D257</td>
<td>Volume resistivity 4</td>
<td>Ohm·cm</td>
<td>2E+16</td>
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<tr>
<td>ASTM D150</td>
<td>Dielectric Constant 4 (60 Hz)</td>
<td></td>
<td>2.8</td>
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<tr>
<td>ASTM D150</td>
<td>Dissipation factor 4 (60 Hz)</td>
<td></td>
<td>0.0011</td>
</tr>
</tbody>
</table>

3. Cure condition 10 min 175°C + 4 hours 200°C  
4. 4 Cure conditions: 5 min 150°C

Description

SILASTIC RBL-9200-50 Liquid Silicone Rubber is a general purpose injection-molding elastomer. It belongs to the SILASTIC™ RBL-9200 Series, developed to be suitable for a wide range of typical silicone rubber applications.

How To Use

Mixing And De-Airing

The A and B components are supplied strained and de-aired to be used as lot matched kits. Mix parts A and B in a 1:1 ratio. Meter mix equipment which pumps, meters and mixes the two components without incorporation of air is strongly recommended for production. If air bubbles are entrapped during mixing the mixture must be thoroughly de-gassed under vacuum.

Pot Life

When Parts A and B are mixed the mixture will remain useable for 72 hours at 25°C (77°F).

Cleaning

The uncured silicone can readily be removed by most hydrocarbon solvents. Polar solvents, such as ketones and alcohols are not suitable.

Curing

SILASTIC RBL-9200-50 Liquid Silicone Rubber cures readily at elevated temperatures. A 2 mm cross-section typically requires 6–10 seconds at 196°C (385°F). The cure time depends on the thickness and the cure temperature used. Cure can be inhibited by contact with certain materials such as amines, sulfur, and organotin complexes.

Pigmentation

This is normally carried out during mixing and dispensing of the two components. XIAMETER™ Color Master Batches are recommended with normal addition levels of 2 to 4% based on total volume.
Regulatory Compliance

Food Contact
SILASTIC RBL-9200-50 Liquid Silicone Rubber is formulated to meet BfR XV recommendation and FDA 21 CFR 177.2600.

Drinking Water
SILASTIC RBL-9200-50 Liquid Silicone Rubber is certified according to following KTW guidelines:
- Sealings: cold water 23°C, warm water 60°C and hot water 85°C
- Fittings: cold water 23°C and warm water 60°C.

SILASTIC RBL-9200-50 Liquid Silicone Rubber conforms to the requirements for the use in the area of drinking water systems pursuant to DVGW Technical Standard W270.

SILASTIC RBL-9200-50 Liquid Silicone Rubber is also approved by the WRAS – Water Regulations Advisory Scheme.

Infant Care
SILASTIC RBL-9200-50 Liquid Silicone Rubber has been assessed according to:
- 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’s products are suitable for customer’s intended use and comply with all laws and regulations applicable to such use.

Usable Life And Storage
When stored at or below 35°C (95°F) in the original unopened containers, this product has a usable life of 15 months from the date of production.

Packaging Information
This product is supplied in lot matched pail and drum kits.

Limitations
This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Handling Precautions
PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.
Health And Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, www.consumer.dow.com or consult your local Dow representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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