



## Technical Data Sheet

### 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

#### 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)
- Grommets, gaskets
- Infant care (e.g. baby nipples)
- Sport & leisure articles (e.g. diving masks)
- Drip irrigation (membranes)

#### Typical Properties

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

Test <sup>1</sup>	Property	Unit	Result
ASTM D2240	Hardness <sup>2</sup>	Shore A	50
ASTM D412	Elongation <sup>2</sup>	%	570
ASTM D412	Tensile Strength <sup>2</sup>	MPa	9.0
ASTM D624 B	Tear Strength <sup>2</sup>	kN/m	42

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.  
ISO: International Standardization Organization.
2. Cure Condition: 10 min at 120°C, no post-cure.

## Typical Properties (Cont.)

Test	Property	Unit	Result
ASTM D792	Specific Gravity <sup>2</sup>		1.13
CTM 1094	Viscosity (10s <sup>-1</sup> )		
	Part A	Pa·s	150
	Part B	Pa·s	150
ASTM D395	Compression Set <sup>3</sup>	%	14
ISO 4662	Rebound Resilience <sup>4</sup>	%	77
ASTM D149	Dielectric Strength <sup>4</sup>	kV/mm	23
ASTM D257	Volume Resistivity <sup>4</sup>	Ohm·cm	2E+16
ASTM D150	Dielectric Constant <sup>4</sup> (60 Hz)		2.8
ASTM D150	Dissipation Factor <sup>4</sup> (60 Hz)		0.0011

3. Cure condition 10 min 175°C + 4 hours 200°C.

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.

### **Infant Care**

SILASTIC™ RBL-9200-50 Liquid Silicone Rubber has 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's products are suitable for customer's intended use and comply with all laws and regulations applicable to such use.

## **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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

## **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.

## **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, [dow.com](http://dow.com) or consult your local Dow representative.

## **Disposal Considerations**

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

## **Product Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

## **Customer Notice**

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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