



SILASTIC™ RBL-9200 Series Liquid Silicone Rubber (LSR)

General-purpose LSRs formulated for process performance



Dow's portfolio of liquid silicone rubber includes two-part, easily mixed, ready-to-use and quickly heat-cured LSR materials. Key features of cured LSRs are good mechanical properties and excellent resistance to weathering, extreme temperatures and aging.

SILASTIC™ RBL-9200 Series

Liquid Silicone Rubbers are 1:1 mix ratio elastomers designed for liquid injection molding. The product series – available in seven different Shore A hardnesses – features translucent, general-purpose LSRs suitable for a wide range of typical silicone rubber applications.

In addition to combining unique rheology and improved flowability, SILASTIC™ RBL-9200 Series LSRs also offer:

- Longer pot life
- Excellent process performance to enable short cycle times
- Food contact use: Formulated to meet requirements of BfR XV recommendation and FDA 21 CFR 177.2600
- Drinking water approvals



Benefits

Rheology

Rheology controls processability. A reduction of 50% of the dynamic viscosity leads to key benefits:

- More accurate dosing
- Improved, faster flowability, allowing production of more intricate part designs and parts with tighter tolerances

See Figure 1.

Elastic modulus

SILASTIC™ RBL-9200 Series LSRs retain low elastic modulus $G'(t)$ prior to injection, leading to:

- Lower injection pressure
- Higher injection speed
- Shorter process cycle times
- Larger process window

See Figure 2.

Figure 1. Rheology of SILASTIC™ RBL-9200-50 LSR

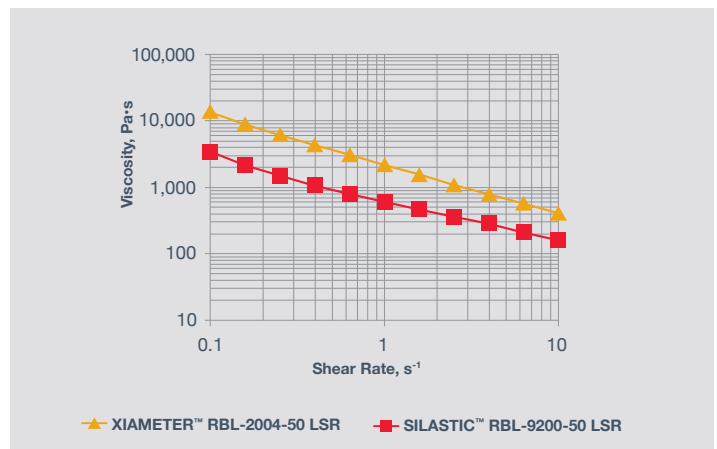
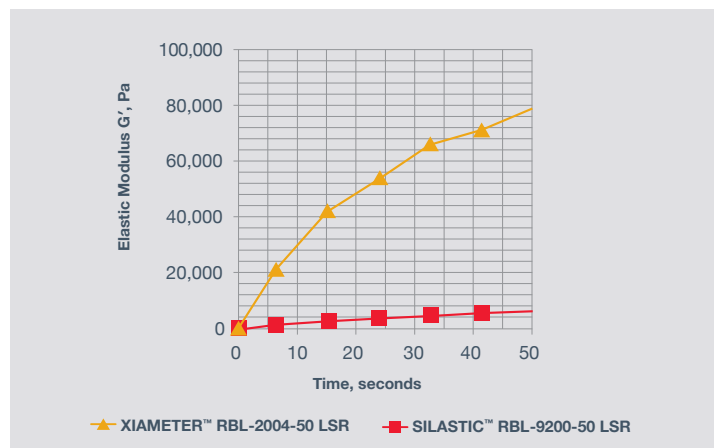


Figure 2. Elastic modulus of uncured SILASTIC™ RBL-9200-50 LSR



Technical properties

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow sales office before writing specifications on this product.

Product	Shore A hardness	Elongation, %	Tensile strength, MPa	Tear strength, kN/m	Viscosity @ 10 s ⁻¹ , Pa·s	
	ASTM D412	ASTM D412	ASTM D412	ASTM D624 DIE B	CTM 1094	
					Part A	Part B
SILASTIC™ RBL-9200-20 LSR	17	930	6.2	21	120	130
SILASTIC™ RBL-9200-30 LSR	30	750	7.5	17	150	140
SILASTIC™ RBL-9200-40 LSR	40	640	9.0	40	140	140
SILASTIC™ RBL-9200-50 LSR	50	570	9.0	42	150	150
SILASTIC™ RBL-9200-60 LSR	60	440	9.5	48	150	140
SILASTIC™ RBL-9200-65 LSR	65	410	9.8	39	150	150
SILASTIC™ RBL-9200-70 LSR	70	370	9.6	21	200	210

Regulatory aspects

The entire SILASTIC™ RBL-9200 Series is formulated to meet the requirements of FDA 21 CFR 177.2600 and the BfR XV recommendation. The table below provides an overview of the product hardnesses that are certified according to KTW guideline and approved to WRAS as well as to DVGW Technical Standard W270. These materials also have been assessed for infant care applications.

Product	Food contact		Drinking water							Infant care		
	BfR ⁽¹⁾	FDA ⁽²⁾	KTW ⁽³⁾						WRAS ⁽⁴⁾		DVGW W270	(5)
			Cold Water (23°C)		Warm Water (60°C)		Hot Water (85°C)					
			Fittings	Sealings	Fittings	Sealings	Fittings	Sealings				
SILASTIC™ RBL-9200-20 LSR	✓	✓									✓	
SILASTIC™ RBL-9200-30 LSR	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
SILASTIC™ RBL-9200-40 LSR	✓	✓	✓	✓	✓	✓		✓	✓		✓	
SILASTIC™ RBL-9200-50 LSR	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
SILASTIC™ RBL-9200-60 LSR	✓	✓	✓	✓	✓	✓		✓	✓		✓	
SILASTIC™ RBL-9200-65 LSR	✓	✓		✓				✓	✓			
SILASTIC™ RBL-9200-70 LSR	✓	✓	✓	✓	✓	✓					✓	

⁽¹⁾Formulated to meet BfR XV recommendation.

⁽²⁾Formulated to meet FDA 21 CFR 177.2600.

⁽³⁾Certified according to KTW guideline.

⁽⁴⁾WRAS approved product.

⁽⁵⁾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's 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 local regulations.

Learn more

With 50 years of rubber compounding experience and fabrication expertise – plus local market knowledge – you can count on Dow Consumer Solutions for answers to your challenges. Rely on our materials innovation, application expertise, broad technical service, and global supply capabilities with local support.

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

Images: dow_41973133107, dow_40455051743, dow_39921078362

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