



Technical Data Sheet

SILASTIC™ Liquid Silicone Rubber 9390-70

70 Durometer, two-part, 1 to 1 mix, off-white, injection molding grade liquid silicone rubber

Features & Benefits

- Good oil resistance
- Low compression set
- No post-cure

Applications

- Molding
- Seals, O-rings and diaphragms
- Automotive anti-drainback valve
- Oil filter component

Typical Properties

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

Test ¹	Property	Unit	Result	
As supplied	Solids content	%	100	
	Extrusion rate	g/minute	40	
	Viscosity (Y=0.9s ⁻¹)	Pa.s	2,890	
	Viscosity (Y=10.0s ⁻¹)	Pa.s	850	
			As molded	Post-cured
D792	Specific gravity		1.47	1.47
D2240	Hardness	Shore A	68	68
D412 DIE C	Tensile strength	Mpa	8.0	8.0
D412 DIE C	Elongation at break	%	240	220
D624 DIE B	Tear strength	kN/m	16	15
D395 method B	Compression set after 70 hours at 150°C (302°F)	%	20	20

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 listed above. Properties obtained on 2 mm thick slabs: Press cured 5 minutes at 176°C (349°F). Post-cured 4 hours at 200°C (392°F). Extrusion rate using a cartridge with an orifice of 3.2 mm and a pressure of 6.2 bar. Viscosity measured on the Carrimed CSL Viscometer.

Typical Properties (Cont.)

Test	Property	Unit	Result	
	Change after heat aging		70 hrs/150°C (302°F)	
D2240	Hardness	Shore A	+1	
D412 DIE C	Tensile strength	%	+10	
D412 DIE C	Elongation at break	%	-8	
	Change after oil immersion 70 hrs/150°C (302°F)		ASTM 1	IRM 903
D2240	Hardness	Shore A	-9	-21
D412 DIE C	Tensile strength	%	+8	-8
D412 DIE C	Elongation at break	%	-17	-20
D471	Volume change	%	+5	+32

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 the 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 usable 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 Liquid Silicone Rubber 9390-70 cures rapidly at elevated temperatures. A 2 mm cross-section requires 8–14 seconds at 200°C (392°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, sulphur and tin complexes.

Pigmentation

This is normally carried out during mixing and dispensing of the two components. SILASTIC™ LPX Liquid Color Masterbatches are recommended with normal addition levels of 2 to 4% based on total volume. These are available from Dow.

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.

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Usable Life And Storage

When stored at or below 32 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 kits: in pails (50 lb) and in drums (500 lb).

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, www.consumer.dow.com or consult your local Dow representative.

<http://www.silastic.com>

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