



SILASTIC™ NPC 9300-70 Liquid Silicone Rubber

FEATURES & BENEFITS

- High hardness
- High strength
- Unique rheology
- Low volatiles content
- Formulated to meet requirements of BfR XV recommendation, and FDA 21 CFR 177.2600 without postcure
- Eliminates postcure operations
- Enables streamlined processes and part design flexibility
- Excellent process performance allows for short cycle times

70 Shore A Hardness, 1-to-1 Mix, Liquid Silicone Rubber

SILASTIC™ NPC 9300-70 Liquid Silicone Rubber is a low-volatility, high-strength silicone elastomer, formulated to meet the requirements of food-regulated applications without the need for postcure.

APPLICATIONS

- Food contact (cooking ware, valves, diaphragms)
- General consumer articles

TYPICAL PROPERTIES

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

Test ¹	Property	Unit	Result
ASTM D2240	Durometer Hardness ²	Shore A	67
ASTM D412	Elongation ²	%	320
ASTM D412	Tensile Strength ²	MPa	9.6
ASTM D412	100% Modulus ²	MPa	4.00
ASTM D624 B	Tear Strength ²	kN/m	27
ASTM D792	Specific Gravity ²		1.12
CTM 1094	Viscosity Part A (10s ⁻¹)	Pa.s	220
CTM 1094	Viscosity Part B (10s ⁻¹)	Pa.s	210
BfR XV recommendation	Volatile compounds content ^{2,3}	%	0.25

¹ASTM: American Society for Testing and Materials.

CTM: Corporate Test Method, copies of CTM's are available on request.

EN: Europäische Norm (European Standard).

²Cure condition: 10 min at 120°C. No postcure.

³Weight loss after 4 hours 200°C test. Tested on non-postcured Liquid Silicone Rubber samples.

DESCRIPTION

SILASTIC NPC 9300-70 Liquid Silicone Rubber is a low-volatility, high-strength, silicone elastomer. It belongs to the SILASTIC™ NPC 9300 Series, developed to meet the requirements of food-regulated applications without postcure.

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).

Curing

SILASTIC NPC 9300-70 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, sulphur, and organotin complexes.

Pigmentation

SILASTIC NPC 9300-70 Liquid Silicone Rubber is pigmentable. Pigmentation is normally carried out during mixing and dispensing of the two components, with normal addition levels of 2 to 4% based on total volume. The pigmentation may affect the volatiles content.

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.

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 kits (2 x 20 kg pail, and 2 x 205 kg steel drum).

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.

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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