

R21-2615

High durometer silicone elastomer

DESCRIPTION

- Flowable, two-part, clear, high durometer silicone
- 1:1 Mix Ratio (Part A: Part B)

APPLICATION

- Use for potting and encapsulating electronic devices and for making molded parts
- Useful in any application requiring a flowable, high durometer material that cures at lower temperatures for heat sensitive parts.

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance	Transparent	ASTMD2090	002
Viscosity, Part A	30,000 cP (30,000 mPas)	ASTMD1084, D2196	001
Viscosity, Part B	20,000 cP (20,000 mPas)	ASTM D1084, D2196	001
Work Time	2 hours	-	008
Cured: 2 hours at 50°C (122°F)			
Specific Gravity	1.07	ASTM D792	003
Durometer, Type A	75	ASTM D2240	006
Tensile Strength	1,200 psi (8.3 MPa)	ASTM D412	007
Elongation	65%	ASTM D412	007
Tear Strength	35 ppi (6.2 kN/m)	ASTM D624	009

The test data shown for this material is the average value for typical properties. All of these properties may not be tested on a lot to lot basis and cannot be used to draft specifications. Please [contact](#) NuSil® for assistance and recommendations in establishing limits for product specifications.

INSTRUCTIONS FOR USE

Processing

Thoroughly mix Part A with Part B in a 1:1 mix ratio by weight or volume. Airless mixing, metering and dispensing equipment is recommended for production processing.

Mixing and Vacuum Deaeration

Thoroughly mix Part A with Part B in a 1:1 mix ratio by weight. Remove air entrapped during mixing by common vacuum deaeration procedure. Prior to deaeration NuSil recommends verification of the work time of the material, and observation of all applicable safety precautions. Slowly apply vacuum, up to 28 inches Hg, to a container rated for use and of volume at least four times that of material being deaerated. Apply the vacuum while observing the uncured fluid for presence of bubble formation and increase vacuum slowly enough to avoid rapid foaming. Hold vacuum until presence of air is no longer evident. For more information visit www.avantorsciences.com/nusil and review [Mixing and De-airing Addition Cure Silicones](#).

NuSil recommends selecting side by side kit packaging (i.e. 400 ml cartridge) if unable to perform the de-airing procedure above or mix and meter equipment is not available due to the pot life of the material.

Substrate Considerations

Cures in contact with most materials, exceptions include: sulfur-cured organic rubbers, latex, chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents.

Note: Some bonding applications may require the use of a primer. NuSil's CF1-135 is recommended.

Adjustable Cure Schedule

Product cures at a wide range of cure times and temperatures to accommodate different production needs. Contact NuSil for details.

OPERATING TEMPERATURE

The operating temperature range of a silicone in any application is dependent on many variables, including but not limited to: temperature, time of exposure, type of atmosphere, exposure of the material's surface to the atmosphere, and mechanical stress. In addition, a material's physical properties will vary at both the high and low end of the operating temperature range. Silicone typically remains flexible at extremely low temperatures and has been known to perform at -50°C (-58°F) as well as resist breakdown at elevated

Packaging

400 mL SxS Kit (0.42 kg)
2 Pint Kit (0.91 kg)
2 Gallon Kit (7.28 kg)
10 Gallon Kit (36.4 kg)
2 Drum Kit (360 kg)

Warranty

12 Months

temperatures up to 250°C (482°F). The user is responsible to verify performance of a material in a specific application.

ROHS AND REACH COMPLIANCE

Please [contact](#) NuSil's Regulatory Compliance department with any questions or for further assistance.

SPECIFICATIONS

Do not use the typical properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) NuSil for assistance and recommendations in establishing limits for product specifications.

WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC is 12 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil provides a specific written warranty of fitness for a particular use, NuSil's sole warranty is that the product will meet NuSil's then current specification. NuSil specifically disclaims all other expressed or implied warranties, including, but not limited to, warranties of merchantability and fitness for use. The exclusive remedy and NuSil's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. NuSil expressly disclaims any liability for incidental or consequential damages.

WARNINGS ABOUT PRODUCT SAFETY

NuSil believes, to the best of its knowledge, that the information and data contained herein are accurate and reliable. The user is responsible to determine the material's suitability and safety of use. NuSil cannot know each application's specific

requirements and hereby notifies the user that it has not tested or determined this material's suitability or safety for use in any application. The user is responsible to adequately test and determine the safety and suitability for their application and NuSil makes no warranty concerning fitness for any use or purpose. NuSil has completed no testing to establish safety of use in any medical application.

NuSil has tested this material only to determine if the product meets the applicable specifications. (Please [contact](#) NuSil for assistance and recommendations when establishing specifications.) When considering the use of NuSil products in a particular application, review the latest Material Safety Data Sheet and [contact](#) NuSil with any questions about product safety information.

Do not use any chemical in a food, drug, cosmetic, or medical application or process until having determined the safety and legality of the use. The user is responsible to meet the

requirements of the U.S. Food and Drug Administration (FDA) and any other regulatory agencies. Before handling any other materials mentioned in the text, the user is advised to obtain available product safety information and take the necessary steps to ensure safety of use.

PATENT / INTELLECTUAL PROPERTY WARNING

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