

# 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 |
|---------------------------------------|-------------------------|-------------------|-------|
| <b>Uncured:</b>                       |                         |                   |       |
| 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   |
| <b>Cured: 2 hours at 50°C (122°F)</b> |                         |                   |       |
| 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   |

\*Properties are not tested on a lot-to-lot basis. Do not use the properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) NuSil Technology for assistance and recommendations in establishing particular specifications and testing parameters.

## 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.nusil.com](http://www.nusil.com) and review [Mixing and De-airing Addition Cure Silicones](#) in our technical resources.

NuSil recommends selecting side by side kit packaging (i.e. 50 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 Technology'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 Technology 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

50 mL SxS Kit  
2 Pint Kit (910 g)  
400 mL SxS Kit  
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 Technology's Regulatory Compliance department with any questions or for further assistance.

## SPECIFICATIONS

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

## WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC (hereinafter "NuSil Technology") is 12 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil Technology provides a specific written warranty of fitness for a particular use, NuSil Technology's sole warranty is that the product will meet NuSil Technology's then current specification. NuSil Technology 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 Technology'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 Technology expressly disclaims any liability for incidental or consequential damages.

## WARNINGS ABOUT PRODUCT SAFETY

NuSil Technology 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 Technology 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 Technology makes no warranty concerning fitness for any use or purpose. NuSil Technology has completed no testing to establish safety of use in any medical application.

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