

# R-2615

Optically Clear Potting and Encapsulating Silicone Elastomer

## Product Profile

### Description

- Two-part, optically clear, solvent free, low viscosity silicone
- Cures at room temperature or rapidly with heat
- Offers good physical and electrical stability across a broad range of temperatures
- 10:1 Mix Ratio (Part A:Part B)

### Applications

- To provide protection of electronic components and assemblies against shock, vibration, moisture, ozone, dust, chemicals and other environmental hazards by potting or encapsulating
- For photonics applications

Typical Properties	Result	Metric Conv.	ASTM	NT-TM
<b>Uncured:</b>				
Appearance	Translucent	-	D2090	002
Viscosity	6,300 cP Part A / 90 cP Part B	6,300 mPas Part A / 90 mPas Part B	D1084, D2196	001
Viscosity (Parts A and B mixed)	5,300 cP	5300 mPas	D1084, D2196	001
Work Time	4 hours	-	-	008
<b>Cured : Cured 30 min @ 150°C (302°F)</b>				
Specific Gravity	1.03	-	D792	003
Durometer, Type A	45	-	D2240	006
Tensile Strength	1,250 psi	8.6 MPa	D412, D882	007
Elongation	100 %	-	D412, D882	007
Tear Strength	20 ppi	3.5 kN/m	D624	009
Refractive Index	1.41	-	D1747, D1218	018
Dielectric Strength	500 volts/mil	19.7 kV/mm	D149	-
Volume Resistivity	1 x 10 <sup>15</sup>	-	D257	040
Operating Temperature Range	-85 to 465°F	-65 to 240°C	-	-

### Instructions for Use

#### Mixing

Mix in a 10:1 ratio Part A to Part B, taking care to minimize air entrapment during mixing.

#### Vacuum Deaeration

Remove air entrapped during mixing by common vacuum deaeration procedure, observing 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. Hold vacuum until presence of air is no longer evident.

#### Substrate Consideration

Cures in contact with most materials common to electronic assemblies. Exceptions include butyl and chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents. Units being encapsulated or potted should be clean and free of surface contaminants. Containers and dispensers being used should also be clean and dry. Cure inhibition can usually be prevented by washing all containers with cleaning solvent or volatilizing the contaminants by heating.

**Note:** Some bonding applications may require the use of a primer. NuSil Technology CF1-135 silicone primer is recommended.

### Packaging

37 ml Kit  
 250 ml Kit  
 1 Pint Kit (505 g)  
 1 Gallon Kit (4.04 kg)  
 5 Gallon Kit (20.2 kg)

### Warranty

6 Months

### **Adjustable Cure Schedule**

Product cures at a wide range of cure times and temperatures to accommodate different production needs. Contact NuSil Technology for details. Some cure schedules\* include:

65°C (149°F)  
40 minutes

100°C (212°F)  
2 minutes

\* Cure time defined as the time required for a knife coat layer ~0.02" to be removed from a release liner

### **Warnings About Product Safety**

NuSil Technology believes that the information and data contained herein are accurate and reliable. However, 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 Sheets 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, obtain available product safety information and take the necessary steps to ensure safety of use.

### **Specifications**

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

### **Patent Warning**

NuSil Technology disclaims any expressed or implied warranty against the infringement of any patent. NuSil Technology does not warrant the use or sale of the products described herein will not infringe the claims of any United States' or other country's patents covering the product itself, its use in combination with other products or its use in the operation of any process.

### **Warranty Information**

NuSil Technology's warranty period is 6 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 any other expressed or implied warranty, including 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.