

# EPM-2481

## Dielectric Silicone Gel

### Description

- Two-part, clear silicone gel
- 1:1 Mix Ratio (Part A: Part B)

### Applications

- As a low modulus embedding or potting compound for environmental protection of electronic assemblies and components
- For applications requiring low volatility

Properties	Average Result	ASTM	NT-TM
<b>Uncured:</b>			
Appearance*	Transparent	D2090	002
Viscosity, Part A*	16,000 cP (16,000 mPas)	D1084, D2196	001
Viscosity, Part B*	8,500 cP (8,500 mPas)	D1084, D2196	001
Viscosity, Mixed*	18,000 cP (18,000 mPas)	D1084, D2196	001
<b>Cured: 30 minutes @ 150°C (302°F)</b>			
Penetration* (Labline Penetrometer, 19.5 gram shaft, 1/4 inch foot, 5 seconds)	0.4 mm	-	011
Volume Resistivity	1 x 10 <sup>14</sup> ohm-cm	D257, D4496	040
Volatile Content (1 hour @ 275°C)	0.8%	D2288	004
Ionic Content, Cl	< 5 ppm	-	-
Ionic Content, K	< 1 ppm	-	-
Ionic Content, Na	< 2 ppm	-	-

\*Properties 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.

### Instructions for Use

#### Mixing

Thoroughly mix Part A with Part B in a 1:1 ratio by weight or volume.

#### Vacuum Deaeration

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all safety precautions. Slowly apply full vacuum to a container rated for use and at least four times the volume of material being deaerated. Hold vacuum until bulk deaeration is complete.

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

#### 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.

#### Adjustable Cure Schedule

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

#### Packaging

50 Gram Kit  
50 mL SxS Kit  
100 Gram Kit

#### Warranty

6 Months

## 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. This type of silicone typically remains flexible at extremely low temperatures and has been known to perform at  $-100^{\circ}\text{C}$  ( $-148^{\circ}\text{F}$ ) as well as resist breakdown at elevated temperatures up to  $300^{\circ}\text{C}$  ( $572^{\circ}\text{F}$ ). The user is responsible to verify performance of a material in a specific application.

## RoHS and REACH Compliance

EPM-2481 is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulation contained in Article 4(1) of the European Parliament and Council's Directive 2002/95/EC. RoHS mandates that manufacturers restrict the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polychlorinated biphenyls, and polybrominated diphenyl ethers in electrical and electronic equipment.

EPM-2481 is also compliant with the Registration, Evaluation, and Authorization of Chemicals (REACH) regulation (European Union 1907/2006). EPM-2481 does not contain any of the 16 chemicals identified as Substances of Very High Concern (SVHC) by the European Chemicals Agency (ECHA), which oversees 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 6 months from the date of shipment when stored below  $40^{\circ}\text{C}$  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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UK & Ireland Distributor



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