

# GEL-8150

High purity dielectric, firm silicone gel

## DESCRIPTION

- High purity, optically clear, firm silicone gel
- Two components blend easily in a convenient 1:1 ratio by weight or volume

## APPLICATION

- For potting, encapsulating, backfilling, and dampening applications requiring a firm gel with optical clarity
- For applications requiring an operating temperature range of -65°C to 200°C (-85°F to 392°F)

## PROPERTIES

Typical Properties	Average Result	Metric Conv.	Standard	NT-TM
<b>Uncured:</b>				
Appearance	Translucent	-	ASTM D2090	002
Viscosity	500 cP	500 mPas	ASTM D1084, D2196	001
Work Time	4 hours	-	-	008
Specific Gravity	0.97	-	ASTM D891	022
<b>Cured: 30 minutes at 100°C (212°F)</b>				
Penetration*	5 mm	-	ASTM DC-CTM 813	017
Dielectric Strength	500 volts/mil	19.7 kV/mm	ASTM D149	-
Dielectric Constant at 100 Hz	2.8	-	ASTM D924	-
Volume Resistivity	1 x 10 <sup>15</sup> ohm/cm	-	ASTM D257	040
Coefficient of Thermal Expansion	3 x 10 <sup>-4</sup> cm/cm/°C	-	ASTM D3386	-

\*GCA Precision Penetrometer, 19.5 gram shaft, 1 inch diameter, 5 seconds.

## INSTRUCTIONS FOR USE

### Mixing

Thoroughly mix Part A with Part B in a 1:1 mix ratio by weight or volume. Increase the ratio of Part A to Part B in the initial mix for a softer gel (high penetration value) and increase the ratio of Part B to Part A for a firmer gel (lower penetration value). Deviations from the 1:1 mix ratio may change cure rates. Airless mixing, metering and dispensing equipment is recommended for production processing.

### Vacuum Deaeration

Removed 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, exceptions include: butyl and chlorinated rubber, some RTV silicones and unreacted residues of curing agents used with a few types of plastics.

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

### Adjustable Cure Schedule

Product cures at room temperature and a wide range of elevated temperatures and cure times to accommodate different production needs. [Contact](#) NuSil Technology for details.

## 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

### Packaging

50 ml SxS Kit  
200 ml SxS Kit  
400 ml SxS Kit  
2 Pint Kit (910 g)  
2 Gallon Kit (7.28 kg)  
10 Gallon Kit (36.4 kg)

### Warranty

12 Months

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.

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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.

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