

# LS-3441

## High purity, dielectric, firm silicone gel

### DESCRIPTION

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

### APPLICATION

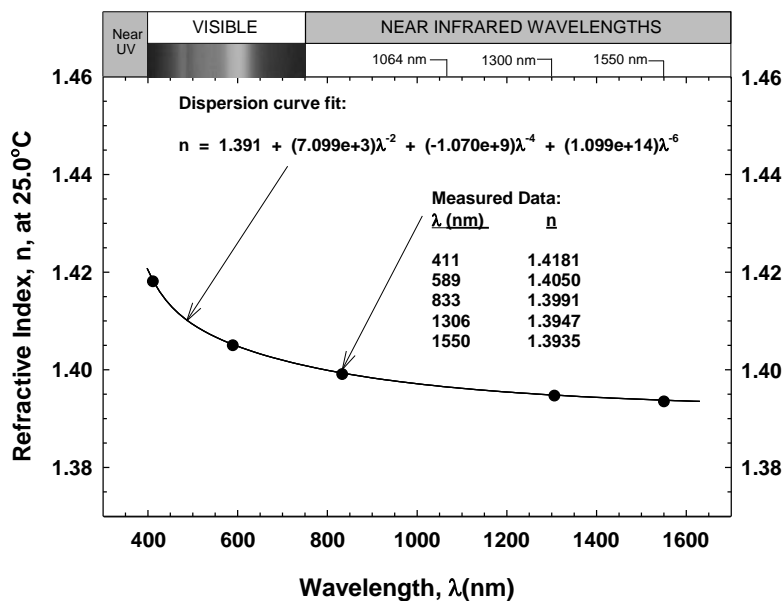
- For potting, encapsulating, backfilling, and dampening applications requiring a firm gel with optical clarity
- Recommended for use with automatic dispense systems
- For applications requiring an operating temperature range of -65°C to 200°C (-85°F to 392°F)

### PROPERTIES

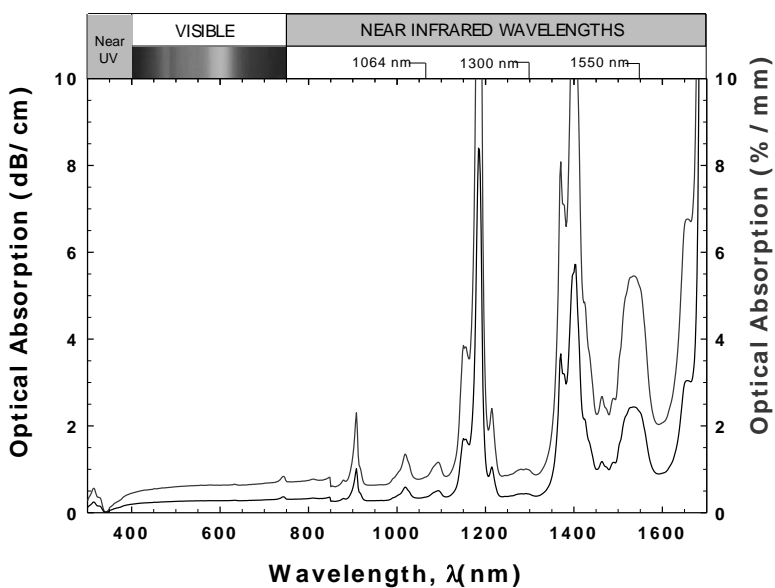
Typical Properties	Average Result	Metric Conv.	Standard	NT-TM
<b>Uncured:</b>				
Appearance	Transparent	-	ASTM D2090	002
Viscosity	14,500 cP	14,500 mPas	ASTM D1084, D2196	001
<b>Cured: 30 minutes at 150°C (302°F)</b>				
Penetration*	0.4 mm	-	ASTM DC-CTM 813	017
Refractive Index	1.41	-	ASTM D1218	018
Thermooptic coefficient	-3.8 x 10 <sup>-4</sup> /°C	-	ASTM D1218	018
Refractive Index vs. Wavelength	See chart	-	-	-
Optical Absorption vs. Wavelength	See chart	-	-	-

\*GCA Precision Penetrometer, 19.5 gram shaft, ¼" diameter, 15 seconds.

**Refractive Index vs. Wavelength (25°C)**  
*NuSil Silicone Elastomer*  
 LS-3441



**Optical Absorption vs. Wavelength (25°C)**  
*NuSil Silicone Gel*  
 LS-3441



## 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 applications may require the use of a primer. NuSil Technology LS1-3200 silicone primer is recommended.

### Adjustable Cure Schedule

Product cures at a wide range of cure times and temperatures to accommodate different production needs. Cure schedules include:

25°C	50°C	75°C
24 hours	4 hours	40 minutes

## 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 -50°C (-58°F) as well as resist breakdown at elevated temperatures up to 200°C (392°F). The user is responsible to verify optical and mechanical performance of a material in a specific application.

### Packaging

50 Gram Kit  
50 ml SxS Kit  
2 Pint Kit (910 g)  
500 Gram Kit

### Warranty

12 Months

## 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.

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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.

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