

# LS-8941

## Optically clear, high durometer silicone elastomer

### DESCRIPTION

- Two-part, optically clear, non-phenyl containing addition cure silicone
- Designed to stay thermo-optically stable with heat and UV exposure
- 24 hours minimum work time
- 80 Type A durometer aids with scratch resistance and reduces tackiness

### APPLICATION

- For molding or casting hard, non-yellowing lenses for LED, solar or other applications where a hard, optically-stable silicone is needed
- Viscosity is designed to be used with conventional Liquid Injection Molding equipment, and the material is self-leveling for casting application techniques

### PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
<b>Uncured:</b>			
Appearance	Transparent Liquid	ASTM D2090	002
Viscosity, Part A	27,500 cP (27,500 mPas)	ASTM D1084, D2196	001
Viscosity, Part B	25,000 cP (25,000 mPas)	ASTM D1084, D2196	001
Viscosity, tested within 30 minutes after catalyzation	21,500 cP (21,500 mPas)	ASTM D1084, D2196	001
Refractive Index	1.41	ASTM D1218, D1747	018
UV/Visible Spectrophotometry at 400 nm, 1 cm path length	94 %T	ASTM E275	100
<b>Cured: minutes at 150°C (302°F)</b>			
Specific Gravity	1.07	ASTM D792	003
Durometer, Type A	80	ASTM D2240	006
Tensile Strength	1,250 psi (8.6 MPa)	ASTM D412	007
Elongation	65%	ASTM D412	007
Tear Strength	55 ppi (9.7 kN/m)	ASTM D624	009

Typical Properties	Average Result	Standard	NT-TM
UV/Visible Spectrophotometry at 400 nm, 1.9 mm path length	95 %T	ASTM E275	100

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

Use with mix and dispense equipment in a 1:1 mix ratio. If mixing by hand, take care to minimize air entrapment.

### 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 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 LS3-3200 silicone primer is recommended.

## 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.

## ROHS AND REACH COMPLIANCE

Please [contact](#) NuSil Technology's Regulatory Compliance department with any questions or for further assistance

### Packaging

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

### 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.

## 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.

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