

# NOVAGARD<sup>®</sup> 600-180

## Silicone Elastomer

### DESCRIPTION

NOVAGARD 600-180 is a two-component silicone that when mixed, cures to an exceptionally clear, tough, flexible elastomer. This material is ideally suited for application as a general potting compound in power supplies, connectors, industrial controls, and junction boxes.

### FEATURES & BENEFITS

- *Wide range of compatibility*
- *Low shrinkage*
- *No exotherm during cure*
- *Low viscosity*
- *Excellent dielectric properties*
- *Constant cure rate*
- *No solvents or cure byproducts*

### INSTRUCTIONS

This material is shipped in separate containers that are labeled Part A and Part B. Part A is the base, and Part B is the cure. While the material may be mixed by hand, it is more appropriate to use automated, meter-mixing equipment as the work life is extremely short and the ultimate cure time is exceedingly fast. The compound is designed with a 1:1 volume:volume mix ratio. Automated mixing equipment eliminates the need for a deaeration cycle. If mixing by hand, weigh 50 parts of Part A in to an appropriately sized mixing vessel; add 50 parts of Part B and mix thoroughly.

### STORAGE

NOVAGARD 600-180 may be stored in the original unopened containers at, or below, 80° F (25°C) for up to one year.

### GENERAL PROPERTIES

#### BEFORE CURE

Physical Property	Test Method	Performance Range
Appearance	After mixing	Clear liquid
Mix Ratio	Base : Cure (by volume)	1 : 1
Specific Gravity	Mixed, 25°C	0.95 – 1.10
Viscosity	Mixed, 25°C	5,000 – 9,000 cps
Working Time	Mixed, 25°C	<20 minutes
Cure Time	100°C	15-30 minutes

#### AFTER CURE (Post Cure 2 hours @ 100C)\*

Physical Property	Test Method	Typical Value
Tensile Strength	ASTM D412	1100 psi (minimum)
Elongation	ASTM D412	240 % (minimum)
Shore Hardness (Shore A)	ASTM D 2240	50-60
Tear Resistance	ASTM D 624	20 pli
Volume Resistivity	ASTM D 257	$9.47 \times 10^{14} \Omega\text{-cm}$
Dissipation Factor (100 Hz / 100 kHz)	ASTM D 150	0.0025 / 0.0022
Dielectric Constant (100 Hz / 100 kHz)	ASTM D 150	3.39 / 3.41
Dielectric Strength (10 mil gap)	ASTM D 149	534 v/mil

\*The values outlined reflect testing that was conducted on laboratory prepared specimens, actual results may vary. The information provided in the above table is not intended for use in preparing specifications. Please consult manufacturer for additional information.

### AVAILABILITY

NOVAGARD 600-180 is available in 5 gallon pails or 55 gallon drums. Check with your Novagard sales representative for packaging options; however, it is expected that

### PRECAUTIONS

Certain materials, chemicals, curing agents and plasticizers may inhibit the cure. The most notable are organo-tin catalysts, amino compounds, polysulfide and other sulfur-containing materials. Do not use in or around highly oxidative chemicals such as liquid oxygen, chlorine or peroxides. Not recommended for surfaces that are to be painted.

### ADDITIONAL INFORMATION

Novagard believes that the information provided is a true and accurate description of the characteristics of the aforementioned product; however, it is the responsibility of the individual user to thoroughly test the product in their specific application to determine performance, efficacy and safety.

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