

**Novagard® 600 Series 600-180
Silicone Elastomer
Specification Data**



DESCRIPTION

Novagard 600 Series 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 by-products

INSTRUCTIONS

This material is shipped in separate containers that are labeled Part A and Part B. 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 mix ratio. Automated mixing equipment eliminates the need for a deaeration cycle. If mixing by hand, weigh 50 parts of Part A into an appropriately sized mixing vessel; add 50 parts of Part B and mix thoroughly.

STORAGE

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

AVAILABILITY

Novagard 600 Series 600-180 is available in 5 gallon pails or 55 gallon drums.

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.

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) Part A Part B	ASTM D1875	0.95 – 1.10 0.95 – 1.10
Viscosity @ 25°C, 10 s ⁻¹ (cPs) (Mixed) Part A Part B	ASTM E3116	15,000 – 20,000 2,500 – 3,500
Working Time (minutes) (Mixed, 25°C)	ASTM D3532	<20
Cure Time, 100°C (minutes)	ASTM D3532	15-30

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

Physical Property	Test Method	Typical Value
Tensile Strength (psi)	ASTM D412	850 – 1150
Elongation (%)	ASTM D412	240 – 400
Hardness (Shore A)	ASTM D2240	35 - 45
Tear Resistance (pli)	ASTM D624	20
Volume Resistivity (Ω-cm)	ASTM D257	9.47 x 10 ¹⁴
Dissipation Factor (100Hz/100 kHz)	ASTM D150	0.0025/0.0022
Dielectric Constant (100 Hz/100 kHz)	ASTM D150	3.39/3.41
Dielectric Strength (kV/mm)	ASTM D149	534

* The values outlined reflect testing that was conducted under laboratory conditions, 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.

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.