

**Novagard® 600 Series 600-HV
Potting and Encapsulant
Preliminary Technical Data Sheet**



DESCRIPTION

Novagard 600 Series 600-HV is a two-component silicone that when mixed, cures to a hard elastomer with improved thermal conductivity. This material is ideally suited for application as a general potting compound in power supplies, connectors, industrial controls, and junction boxes.

FEATURES

- Wide range of compatibility
- Low shrinkage
- No exotherm during curing
- Low viscosity
- Excellent dielectric properties
- No solvents or cure by-products
- No post-cure cure required
- UL 94 V0 Certified (pending)

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 volume-to-volume mix ratio. Automated mixing equipment eliminates the need for a deaeration cycle. If mixing by hand, weigh 100 parts of Part A into an appropriately sized mixing vessel; add 100 parts of Part B and mix thoroughly.

STORAGE

Novagard 600 Series 600-HV may be stored in the original unopened containers at, or below, 77°F (25°C) for up to one year.

AVAILABILITY

Novagard 600 Series 600-HV is available in 5-gallon, straight-sided pails or 55-gallon drums. Speak with a Novagard representative for custom packages.

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	Brown
Mix Ratio	Base: Cure (by volume)	1:1
Specific Gravity (Part A/ Part B)	ASTM D1875	1.60
Viscosity (cPs), (mix)	ASTM E3119 (Brookfield HBT #4 @ 20 rpm)	7,500 9,400 6,000
Working Time	RT	2 hours
Cure Time	ASTM D3532	8 hours @ RT 30 mins @ 140°F (60°C)

AFTER CURE

Physical Property	Test Method	Typical Value
Tensile Strength (psi)	ASTM D412	300
Elongation (%)	ASTM D412	30
Hardness (Shore A)	ASTM D2240	70
Thermal Conductivity (w/m·K)	ASTM D5470	0.38
Thermal Expansion CTE (ppm/°C)	ASTM E831	250
Volume Resistivity (Ω cm)	ASTM D257	1.60E+15
Dissipation Factor (100 Hz/100 kHz)	ASTM D150	0.0400 / 0.0094
Dielectric Constant (100 Hz/100 kHz)	ASTM D150	3.43 / 3.16
Dielectric Strength	ASTM D149	32kV/mm 813 V/mil
Service Temperature		-40°F to 392°F (-40°C to 200°C)

CERTIFICATIONS

Physical Property	Test Method	Typical Value
UL 94	V0	Pending

*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 the 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.