

NOVAGARD[®] 600-170

Potting and Encapsulant



DESCRIPTION

NOVAGARD 600-170 is a two-component silicone that when mixed, cures to a moderately flexible elastomer. This material is ideally suited for application as a general potting compound in power supplies, connectors, and junction boxes.

FEATURES

- Low shrinkage
- No exotherm during cure
- Low viscosity
- Excellent dielectric properties
- No solvents or cure byproducts
- No post cure required
- UL rated (pending)

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 600-170 may be stored in the original unopened containers at, or below, 80° F (25°C) for up to one year.

AVAILABILITY

NOVAGARD 600-170 is available in 5 gallon, straight-sided pails or 55 gallon drums.

GENERAL PROPERTIES

BEFORE CURE

Physical Property	Test Method	Performance Range
Appearance	After mixing	Dark Grey
Mix Ratio	Base : Cure (by volume)	1 : 1
Specific Gravity	Mixed, 25°C	1.30 – 1.40
Viscosity	Mixed, 25°C	2,000 – 5,000 cps
Working Time	Mixed, 25°C	<15 minutes
Cure Time	25°C	2-3 hours

AFTER CURE (7 Days at 25C / 50% RH)*

Physical Property	Test Method	Typical Value
Tensile Strength	ASTM D412	125 psi (minimum)
Elongation	ASTM D412	200 % (minimum)
Shore Hardness (Shore A)	ASTM D 2240	30 - 50
Tear Resistance	ASTM D 624	15 - 25 pli
Flammability Class	UL 94	V0 (Pending)
Volume Resistivity	ASTM D 257	8.45 x 10 ¹³ Ω-cm
Dissipation Factor (100 Hz / 100 kHz)	ASTM D 150	0.0020 /0.0017
Dielectric Constant (100 Hz / 100 kHz)	ASTM D 150	3.69/ 3.71
Dielectric Strength 10 mil gap	ASTM D 149	470 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.

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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