Novagard® 600 Series 600-250 Silicone Elastomer Specification Data

NOVAGARD®

DESCRIPTION

Novagard 600 Addition Cure 600-250 is a two-component silicone that, when mixed, cures an exceptionally clear, tough, flexible elastomer. This material is ideally suited for application as a general potting compound in power supplies, connectors, industrial controls, LED lighting encapsulation, sensor protection and junction boxes.

FEATURES & BENEFITS

- Wide range of compatibility
- Low shrinkage
- No exotherm during curing
- Flowable
- High transparency
- Excellent dielectric properties
- No solvents or no by-products

INSTRUCTIONS

These two parts are 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 mix thoroughly and vacuum de-gas.

STORAGE

Novagard 600 Series 600-250 may be stored in the original unopened containers at, or below, 77˚F (25°C) for up to one year.

AVAILABILITY

Novagard 600 Series 600-250 is available in 1-gallon pails, 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

PRODUCT SPECIFICATIONS (UNMIXED)

Physical Property	Test Method	Typical Value
Mix Ratio	Base: Catalyst (by volume/weight)	1:1
Specific Gravity Part A Part B	ASTM D1875	 0.98 0.98
Viscosity (cPs) Part A Part B	ASTM E3119 (Brookfield HBT #4 @ 20 rpm)	 7,200 5,600

PRODUCT SPECIFICATIONS (MIXED)

Physical Property	Test Method	Typical Value
Appearance	After mixing	Clear flowable
Viscosity (mix) (cPs)	ASTM E3119 (Brookfield HBT #4 @ 20 rpm)	6,300
Working Time (minutes)	ASTM D3532	30 minutes
Cure Time	ASTM D3532	≥ 4 hours @ RT 30 minutes @ 140°F (60°C)

TYPICAL CURED PROPERTIES CURE (Post Cure 2 hours @ 212˚F (100˚C) *

Physical Property	Test Method	Typical Value
Tensile Strength (psi)	ASTM D412	550
Elongation (%)	ASTM D412	170
Hardness (Shore A)	ASTM D2240	35
Thermal Conductivity (w/m·K)	ASTM D5470	0.17
Thermal Expansion CTE (ppm/°C)	ASTM E831	350
Volume Resistivity (Ω cm)	ASTM D257	7.60E+14
Dissipation Factor (100Hz/100 kHz)	ASTM D150	0.0016 / 0.0007
Dielectric Constant (100Hz/100 kHz)	ASTM D150	2.53 / 2.52
Dielectric Strength	ASTM D149	26.5 kV/mm 673 V/mil
Transparency	UV-vis	>90% at visual light

CERTIFICATIONS

Physical Property	Typical Value
UL 94 Flammability	HB (Pending) V1 (Pending)
Cytotoxicity (ISO 10993-5)	Pass

* 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.

5109 Hamilton Ave., Cleveland, OH 44114 USA | P (216) 881-8111 | F (216) 881-6977 | novagard.com | ISO 9001:2015, IATF 16949:2016