

Novagard® 600 Series 600-223

Silicone Soft Gel

Specification Data

NOVAGARD®

DESCRIPTION

Novagard 600 Series addition cure 600-223 is a two-component (1:1), plasticizer-free product, and after cure, it forms a very soft, compliant, transparent, non-corrosive silicone-encapsulating gel that is suitable for delicate components. A pourable or dispensable product with pure resin content near 100%, 600 Series 600-223 can cure at room temperature and can be heat accelerated to increase the cure rate.

FEATURES & BENEFITS

- Transparent
- Heat cure to accelerate the process efficiency.
- Low viscosity allows good flow to small gaps and to fill shadow areas.
- Soft gel protects the important parts by absorbing mechanical dampness and shock.
- Low Shrinkage

APPLICATIONS

A silicone gel for potting and encapsulating, embedding, and coating intricate electronic components. The product offers the following attributes:

- Wide range of compatibility
- Very flexible
- Stress relief
- Wide service temperature -40C~200C.

INSTALLATION

The 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 and cure with heat. The compound is designed with a 1:1 volume-to-volume or weight-to-weight 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 and de-gas with vacuuming before pouring.

AVAILABILITY

Novagard 600 Series 600-223 is available in 1-gallon pails, 5-gallon pails or 55-gallon drums.

STORAGE

Novagard 600 Series 600-223 has a shelf life of twelve (12) months from the date of manufacture, as indicated by the lot number, when stored in the original, unopened container at, or below, 70°F (21°C).

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. Consult and obey all applicable local, state, and federal regulations for the disposal of solvent and silicone waste. For additional information consult product S.D.S.

PRODUCT SPECIFICATIONS (UNMIXED)

Physical Property	Test Method	Typical Value
Chemistry		Addition Cure
Mix Ratio	Base: Catalyst (by volume/weight)	1:1
Specific Gravity		
Part A	ASTM D1875	0.99
Part B		0.99
Viscosity (cPs)		
Part A	ASTM E3119 (Brookfield HBT #2 @ 20 rpm)	550
Part B		450

PRODUCT SPECIFICATIONS (MIXED)

Physical Property	Test Method	Typical Value
Appearance	After mixing	Clear flowable
Viscosity (mix) (cPs)	ASTM E3119 (Brookfield HBT #2 @ 20 rpm)	500
Working Time (hours)	ASTM D3532	>2 @ RT
Cure Time	ASTM D3532	72 hours @ RT 3 hours @ 140°F (60°C) 30 minutes @ 212°F (100°C) 15 minutes @ 302°F (150°C)

TYPICAL PROPERTIES*

Physical Property	Test Method	Typical Value
Hardness (Shore 000)	ASTM D2240	16
Thermal Expansion CTE (ppm/°C)	ASTM E831	400

ELECTRICAL PROPERTIES*

Electrical Property	Test Method	Typical Value
Dielectric Strength	ASTM D149	13.0 kV/mm 330 V/mil
Dielectric Constant (100 Hz / 100 kHz)	ASTM D150	2.79 / 2.80
Dissipation Factor (100 Hz / 100 kHz)	ASTM D150	0.0024 / 0.0001
Volume Resistivity (Ω cm)	ASTM D257	1.90E+14

*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.

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ADDITIONAL INFORMATION

Novagard believes that the information provided is a true and accurate description of the typical characteristics of the 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.

CERTIFICATIONS

Physical Property	Typical Value
Cytotoxicity (ISO 10993-5)	Pass

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