Novagard® 500 Series 500-210
Specification Data – Technical Data Sheet

NOVAGARD

DESCRIPTION
Novagard 500 Series 500-210 is a non-corrosive, single-component general-purpose alkoxy silicone conformal coating and encapsulating compound. A balanced-performance translucent sprayable, dispensable, or pourable product with solids content near 100%. 500 Series 500-210 cures at a rapid room temperature alkoxy moisture cure that can be further accelerated with moderate heat to a rubbery solid.

FEATURES AND BENEFITS
- Delivers a more uniform bond
- Offers a strong bond for applications where adhesion is critical
- Provides a barrier coating to protect against moisture and dust
- Helps dampen vibrations
- Offers a simple "dispense and forget" process

APPLICATIONS
Electronics coating and protection, circuit board protection, thin section adhesive. Used in a variety of industries, including solar power, wind turbines, LED lighting, automotive and transportation, consumer electronics, battery systems, power distribution systems, and electric vehicles.

INSTALLATION
As with all single-component materials, the work life and cure times of Novagard 500 Series 500-210 are dependent upon environmental conditions such as temperature, humidity, and application thickness.

ADHESION
Adhesion should be checked on small samples prior to full-scale production. With RTV cure coatings, adhesion typically lags behind cure and may take up to 72 hours at room temperature to build in some coatings. Novagard conformal coatings are formulated to provide adhesion to the most common substrates and materials. It is recommended that the coatings be applied to clean and dry substrates prior to application.

Due to the vast variety of substrates used appropriate adhesion testing should be performed to ensure the adhesion of the coating is adequate for the end use and should only be tested after 72 hours at room temperature. On certain difficult, low-surface energy surfaces, adhesion may be improved by priming or by special surface treatment such as chemical or plasma etching.

PRODUCT SPECIFICATIONS

Physical Property	Test Method	Performance Range
Appearance		Clear Liquid
Tack-Free Time	1/8" @ 50% RH & 77°F (25°C)	<10 minutes
UV Tracer		Yes

TYPICAL PROPERTIES*

Physical Property	Test Method	Typical Value
Viscosity (cPs)	Brookfield LV CPA – 52Z @ 1.5 rpm	450
Refractive Index (uncured)	-	1.40
Specific Gravity	ASTM D1875	0.98
Hardness (Shore A)	ASTM D2240	40
Tensile Strength (psi)	ASTM D412	65
Elongation (%)	ASTM D412	95

ELECTRICAL PROPERTIES*

Electrical Property	Test Method	Typical Value
Dielectric Strength	ASTM D149	> 13.5 kV/mm 406 V/mil
Dielectric Constant at 100 Hz	ASTM D150	2.25
Dielectric Constant at 100 kHz	ASTM D150	2.25
Dissipation Factor at 100 Hz	ASTM D150	0.0012
Dissipation Factor at 100 kHz	ASTM D150	0.0001
Volume Resistivity (Ω cm)	ASTM D257	1.55×10^{14}
Operating Temperature		-40°F – 392°F (-40°C – 200°C)

CERTIFICATIONS

Certification	Result
UL 746E	Pass
Flammability (UL-94)	V-1

*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.

AVAILABILITY
Novagard 500 Series 500-210 is available in 10-ounce cartridges and 5-gallon pails.

STORAGE
Novagard 500 Series 500-210 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
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.

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 typical 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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