

Thermoset LS 213-9 Epoxy Encapsulant

Description

LORD Thermoset LS 213-9 encapsulant is a one-component epoxy impregnating compound for use in electrical laminations and potting applications. It can also be used as a reworkable underfill encapsulant.

Features and Benefits

Low Viscosity – maintains low viscosity for complete and void-free encapsulation.

Excellent Electrical Stability – provides excellent dielectric properties where high electrical dissipation is required.

Environmentally Resistant – provides good resistance to moisture.

Application

Applying – Mount the syringe onto the dispensing equipment that has been thoroughly cleaned and purge encapsulant through the system until an unbroken flow of material is extruded. The system is now ready to begin dispensing.

Curing – Allow encapsulant to cure for 2 hours at 120°C, or for 5 hours at 104°C, or for 8 hours at 93°C. This time-at-temperature profile refers to the time the material should be allowed to cure once it reaches the target temperature. Allowance should be made for oven ramp rates, parts with large thermal mass and other circumstances that may delay material actually reaching the target temperature.

Typical Properties*

Uncured

Appearance	Amber Liquid
Viscosity, cps @ 25°C	2,800
Specific Gravity	1.13
Solids Content by Weight, %	100
Working Life, month @ 25°C	3

Cured

Volume Resistivity, ohm-cm	2×10^{15}
Thermal Conductivity, W/mK	0.1
Glass Transition Temperature (T _g), °C by TMA	80
Hardness Shore D	85
Tensile Strength, MPa	41.4
Dielectric Strength, V/mil	480
Dielectric Constant 1 kHz	3.4
Dissipation Factor 1 kHz	0.22

*Data is typical and not to be used for specification purposes.

LORD TECHNICAL DATA

Cleanup – Disposable containers and utensils are recommended when working with epoxies. However, when disposable materials are impractical, uncured encapsulant can be removed by cleaning equipment with solvent. Solvent-cleaned utensils should be thoroughly dried before reuse; any remaining solvent can contaminate the next mixture.

Shelf Life/Storage

Shelf life is four months from date of manufacture when stored in a well ventilated area at 25°C in original, unopened container.

Cautionary Information

Before using this or any LORD product, refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling instructions.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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