

CoolTherm™ EP-6960 Conductive Adhesive

Description

LORD CoolTherm™ EP-6960 silver-filled conductive adhesive offers excellent electrical conductivity and room temperature stability. It is designed for use with automated dispensing, stamping and screen-printing application equipment.

CoolTherm EP-6960 adhesive provides excellent adhesion to a wide variety of surfaces including silicon, ceramic, plastics and metal.

Features and Benefits

Convenient – provides a working life of up to 30 days after loading a syringe into the dispensing equipment at room temperature.

Excellent Dispensability – allows high-speed, accurate syringe dispensing of fine dots or lines; can be used with time/pressure, positive displacement or linear dispense heads.

Fast Cure – rapidly cures at 150°C and 210°C.

Broad Temperature Range – can be used on parts and devices that experience operating temperatures from -55°C to +150°C.

Application

Applying – Before use with dispensing equipment, allow adhesive to be warmed to room temperature (ideally 20-25°C). Thaw adhesive by placing the syringe in a vertical (upright) position with dispense tip facing downward in an ambient environment.

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

Typical Properties*

Uncured

Appearance	Silver Paste
Viscosity, cps @ 25°C	150,000
Specific Gravity	3.3

Cured

Volume Resistivity, ohm-cm @ 25°C	<0.0008
Thermal Conductivity, W/mK	1.1
Coefficient of Linear Thermal Expansion, ppm/°C	
alpha 1	60
alpha 2	150
Glass Transition Temperature (Tg), °C by TMA	49
Die Shear Strength, psi @ 25°C	6000
Storage Modulus, MPa @ 25°C	5000

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

LORD TECHNICAL DATA

Curing – Allow adhesive to cure for 90 minutes at 125°C, for 30 minutes at 150°C, or for 5 minutes at 210°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 the material actually reaching the target temperature.

Cleanup – Clean equipment with conventional organic solvents such as acetone or isopropyl alcohol.

Shelf Life/Storage

Shelf life is twelve months from date of manufacture when stored at 0°C in original, unopened container. Syringe must be maintained at 0°C in a vertical (upright) position with the dispense tip facing down. Do not store syringe on its side (horizontally).

This material is shipped and stored frozen.

Cautionary Information

Before using this or any LORD product, refer to the Safety Data Sheet (SDS) 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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