

CoolTherm™ EP-6150 Epoxy Adhesive

Description

LORD CoolTherm™ EP-6150 adhesive is a one-component, thixotropic epoxy adhesive designed for use in the assembly of electronic components and devices.

CoolTherm EP-6150 adhesive offers good adhesion to a wide variety of substrates, and can be used in demanding high-end device assembly applications.

Features and Benefits

Excellent Stability – provides excellent thermal stability.

Fast Cure – rapidly cures at 121°C and 177°C.

Chemically Resistant – provides excellent resistance to acids and strong bases.

Non-Sag – thixotropic rheology allows shape to be maintained after dispensing.

Application

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

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

CoolTherm EP-6150 adhesive is designed for use in masses of <5 grams. Larger masses or excessive temperatures may lead to violent exothermic reactions.

**Handling instructions are available on LORD.com.

Typical Properties*

Uncured

Appearance	White Paste
Viscosity, cps @ 25°C	145,000
Specific Gravity	1.73
Gel Time, min	
@ 121°C	10
@ 177°C	1

Cured

Volume Resistivity, ohm-cm @ 25°C	>1 x 10 ¹⁵
Thermal Conductivity, W/mK	0.6
Glass Transition Temperature (Tg), °C	141
Hardness @ 25°C	90
Shore D	
Lap Shear Strength, psi	>1600
AL-AL	
Dielectric Strength, V/mil	450
Dielectric Constant @ 25°C	3.9
1 MHz	
Dissipation Factor @ 25°C	0.03
1 MHz	

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

LORD TECHNICAL DATA

Curing – Allow adhesive to cure for 30 minutes at 121°C, or for 10 minutes at 177°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 reaching the target temperature.

Shelf Life/Storage

Shelf life is three months from date of manufacture when stored at 5°C in original, unopened container. Syringe must be stored in a vertical (upright) position with the dispense tip facing down. Do not store syringe on its side (horizontally).

If material is stored at 25°C, shelf life will be shortened to approximately one month.

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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