

CoolTherm™ EP-6972 Conductive Adhesive

Description

LORD CoolTherm™ EP-6972 adhesive is a two-component, silver-filled, epoxy conductive adhesive which offers good electrical and thermal conductivity. This adhesive system requires an elevated temperature cure, and is designed for general circuit board repair.

Features and Benefits

Convenient – easy to use 1:1 mix ratio, by weight.

Good Conductivity – cured system provides good electrical and thermal conductivity.

Broad Temperature Range – can be used on parts and devices that experience operating temperatures from -50°C to +150°C.

Excellent Adhesion – cured system forms a highly adherent bond to many types of materials such as epoxy laminate circuit boards, copper, aluminum, solder, alumina and glass.

Application

Surface Preparation – All surfaces to be bonded should be clean, dry and free of grease, dirt and other contaminants.

Mixing – Transfer amount of CoolTherm EP-6972 resin needed to a clean container. Add CoolTherm EP-6972 hardener at a 1:1 ratio, by weight. Thoroughly mix resin and hardener together. Automatic meter/mix/dispense equipment may be used for high volume production.

Applying – Apply adhesive manually or by using automatic meter/mix/dispense equipment.

Curing – Allow adhesive to cure for 40 minutes at 85°C, or for 20 minutes at 100°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.

Typical Properties*

	EP-6972 Resin	EP-6972 Hardener	Mixed
Appearance	Silver Paste	Silver Paste	Silver Paste
Viscosity	Paste	Paste	–
Specific Gravity	3.49	3.55	3.52
Working Life, hr @ 25°C 100 gram mass	–	–	>1

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

LORD TECHNICAL DATA

Typical Cured Properties*

Volume Resistivity, ohm-cm @ 25°C ASTM D 257	< 0.0005
Thermal Conductivity, W/mK	2.13
Hardness Shore D	80
Lap Shear Strength, psi AL-AL	1200

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

Shelf Life/Storage

Shelf life of each component is six months from date of manufacture when stored at 25°C in original, unopened container.

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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