

CircuitWorks® 60 Minute Conductive Epoxy

Product# CW2460

Product Description

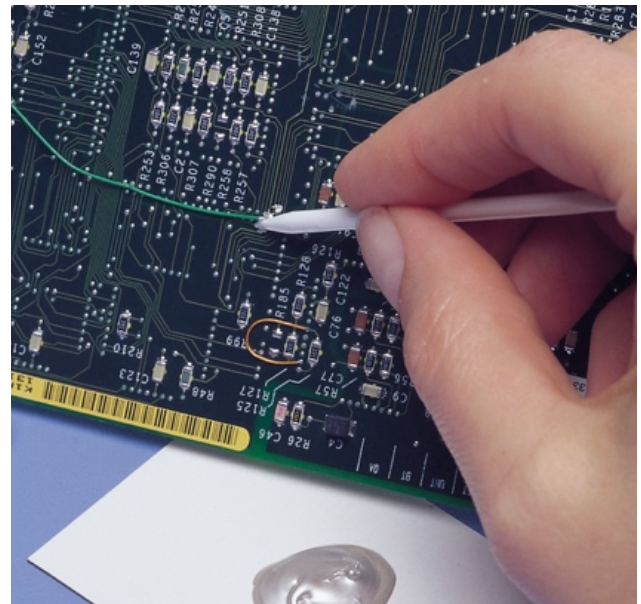
The 60 Minute Conductive Epoxy is a two part, silver epoxy used in prototype, repair and general solder-less conductive bonding applications. It features strong mechanical bonds, excellent electrical conductivity, and extended pot life for increased work time. Components can be easily placed and replaced before full cure occurs. For accelerated cure, simply heat material to 212°F (100°C). This conductive epoxy bonds aggressively to a wide variety of materials

- Two-component product with simple mixing ratios
- 60 minute work time offers increased workability and extended pot life
- Excellent electrical and thermal conductivity
- High strength bond adheres dissimilar surfaces
- Operating temperature range from -67°F (-55°C) to 300°F (150°C)

Typical Applications

60 Minute Conductive Epoxy may be used for electronics applications including:

- Conductive Bonds Between Heat Sensitive Components
- Solderless Surface Mount Connections
- Circuit Board Trace Repair
- Static Discharge and Grounding
- Solder Repair
- Conductive Structural Adhesions
- Conductive Structural Adhesions



Typical Product Data and Physical Properties

COMPOSITION:

| | |
|------------------|--------------------------------------|
| Material: | Part A: Adhesive Part B: Hardener |
| Color: | Bright Silver Gray Silver |

Silver Content: >75%

CURED COMPOUND:

Volume Resistivity: <0.001 ohm-cm

Thermal Conductivity:

| | |
|--------------------------------|------------------------|
| Cal-cm/sec-cm ² -°C | 3.8 x 10 ⁻³ |
| BTU-in/hr-ft ² -°F | 11.0 |
| W/m ² K | 1.6 |

Operating Temperature Range: -67°F to 300°F
(-55°C to 150°C)

Tensile Lap Shear: >70-140 Kg-m/cm²
(ASTM D-1002) (>1000 to 2000 lbs/in²)

Shore D Hardness: >70

Adhesion: Excellent

Cured Flexibility: Excellent

Chemical Resistance: Excellent

Moisture Resistance: Good

Typical Thickness: 5 mil

Shelflife 12 months
(Conditions: Store at temperatures below 120°F (49°C))

RoHS Compliant Yes

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Compatibility

60 Minute Conductive Epoxy is generally compatible with most materials used in printed circuit board fabrication. As with any adhesive/sealant, compatibility with substrate should be determined on a non-critical area prior to use.

Usage Instructions

For industrial use only. Read SDS carefully prior to use.

Cleaning: For best results, clean the board prior to application with a Chemtronics ControlWipe and Chemtronics Electro-Wash PX to remove any surface contamination which may prevent adequate material contact.

Mixing: Mix equal amounts (1:1) by weight or volume of Part A and Part B. Mix thoroughly for 2-3 minutes and apply within 1-2 hours

Thinning: Do not attempt to thin.

Curing: Curing times and electrical conductivity depend primarily on temperature. For fastest curing times, maximum conductivity and adhesion, cure the bond at 175°F to 212°F (80 to 100°C) for 10-15 minutes. It can be room temperature cured at or above 77°F (25°C) for 24 hours. Maximum conductivity and bond strength are achieved in 36 hours.

Curing at temperatures below 77°F (25°C) will result in a loss of conductivity and adhesion.

Pot Life: 1-2 hours at 20-25°C after mixing (3-5 gram mass).

Availability

| | | |
|---------------|--------|-------------------------------|
| CW2460 | Part A | 10 g. adhesive per mixing jar |
| | Part B | 10 g. hardener per mixing jar |

Environmental Impact Data

| | |
|------|------|
| ODP | None |
| HCFC | None |
| VOC | None |
| HFC | None |

Ozone depletion potential (ODP) is determined in accordance with the Montreal Protocol and U.S. Clean Air Act of 1990. Hydrochlorofluorocarbons (HCFCs) are regulated under the Montreal Protocol as Class II ozone depleting substances. Volatile Organic Compound (VOC) information is calculated on a weight basis using the VOC definition of California Air Resources Board (CARB) Consumer Product Regulations, South Coast Air Quality Management District (SCAQMD) Rule 102 and the Federal definition published in 40 CFR 51.100(s). Hydrofluorocarbons (HFCs) are not currently regulated.

Technical and Application Assistance

Chemtronics provides a technical hotline to answer your technical and application related questions.

The toll free number is: 1-800-TECH-401.

Note:

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. CHEMTRONICS does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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