

# CHEMTRONICS®

## Technical Data Sheet

**TDS # CW2400**

### CircuitWorks® Conductive Epoxy

#### PRODUCT DESCRIPTION

CircuitWorks® Conductive Epoxy is a two part, silver epoxy used in prototype, repair and general conductive bonding applications. CW2400 features strong mechanical bonds, excellent electrical conductivity, and quick room temperature curing. CircuitWorks® Conductive Epoxy bonds aggressively to a wide variety of materials.

- Two-component product
- Simple mixing ratios
- Excellent electrical conductivity
- Fast curing
- High strength bond
- Bonds dissimilar surfaces
- Operating temperature range from
- -91°C (-131°F) to 100°C (212°F)

#### TYPICAL APPLICATIONS

CircuitWorks® 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

#### TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

##### Composition

Material	Part A Part B	Epoxy Hardener
Specific Gravity (Parts A & B Mixed)		2.85

##### Cured Compound

Volume Resistivity	<0.001 ohm-cm
Thermal Conductivity	
Cal-cm/sec-cm <sup>2</sup> -°C	3.8 x 10 <sup>-3</sup>
BTU-in/hr-ft <sup>2</sup> -°F	11.0
W/m <sup>2</sup> K	1.6
Operating Temperature Range	-131 to 212°F (-91 to 100°C)
Lap Shear (ASTM D-1002)	>1200 lbs/in <sup>2</sup>
Shore Hardness	>70
Adhesion	Excellent
Cured Flexibility	Excellent
Chemical Resistance	Excellent
Moisture Resistance	Good
Typical Thickness	5 mil
<b>Shelflife</b>	12 months
Conditions: Store at temperatures below 120° F	

## COMPATIBILITY

CircuitWorks<sup>®</sup> 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

**Read MSDS carefully prior to use.**

**Cleaning:** For best results, clean the board with one of Chemtronics<sup>®</sup> Electro-Wash<sup>®</sup> or Pow-R-Wash<sup>®</sup> cleaners in order 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 minutes and apply within 8 minutes.

**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 between 150-250°F (65-121°C) for 5-10 minutes. CircuitWorks<sup>®</sup> Conductive Epoxy can be room temperature cured at or above 75°F (25°C), for 4 hours. Maximum conductivity and bond strength are achieved in 24 hours. *Curing at temperatures below 75°F (25°C) will result in a loss of conductivity and adhesion.*

**Pot Life:** 8-10 Minutes at 75°F (25°C) after mixing.

## AVAILABILITY

CW2400      7g/ 0.25 oz. Adhesive &  
                  7g/ 0.25 oz. Hardener

## TECHNICAL & APPLICATION ASSISTANCE

Chemtronics<sup>®</sup> 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<sup>®</sup> does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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