

# ITW CHEMTRONICS<sup>®</sup>

## Technical Data Sheet

**CW7250**

### CircuitWorks<sup>®</sup> Boron Nitride Heat Sink Grease

#### PRODUCT DESCRIPTION

CircuitWorks<sup>®</sup> Boron Nitride Heat Sink Grease facilitates heat transfer away from electrical/electronic components and into heat sinks. The material exhibits exceptionally high thermal conductivity with outstanding dielectric properties (nonconductive). CircuitWorks<sup>®</sup> Boron Nitride Heat Sink Grease shows no creep or migration over a wide temperature range. The grease contains an efficient heat conducting filler that enhances the effectiveness of heat sinks on electrical/electronic equipment.


- Exceeds MIL-C-47113 for thermal conductivity
- Noncorrosive
- High dielectric strength
- Stable from -73°C to 200°C
- Nonflammable

#### TYPICAL APPLICATIONS

CircuitWorks<sup>®</sup> Boron Nitride Heat Sink Grease may be used for electronics applications including:

- Effective Thermal Coupler for any Heat Sink Device
- Nonflammable Protective Coating
- High Voltage Corona Protection
- Excellent for Improving Readings on Contact Type Thermocouples
- Ideal for Silicone Sensitive Environments

#### TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

|  |   |
|--|---|
| <b>Color</b>   | White   |
| <b>Specific Gravity @ 25°C (77°F)</b>                      | 1.5   |
| <b>Usable Temperature Range</b>                            | -73°C/-99.4°F<br>to 200°C/392°F   |
| <b>Dielectric Strength, volts/mil</b>                      | 400   |
| <b>Dielectric Constant @ 100 Hz</b>                        | 2.2   |
| <b>Dissipation Factor @ 100 Hz</b>                         | 0.002   |
| <b>Volume Resistivity, ohm-cm</b>                          | 1 x 10 <sup>12</sup>  |
| <b>Arc Resistance, seconds</b>                             | 120   |
| <b>Thermal Conductivity, Cal-cm/sec-cm<sup>2</sup> -°C</b> | 4.4 x 10 <sup>-3</sup>  |
| <b>BTU-in/hr-ft<sup>2</sup> -°F</b>                        | 12.35   |
| <b>W/m<sup>2</sup>K</b>                                    | 1.85  |
| <b>Shelflife</b>   | 5 years   |
| <b>RoHS Compliant</b>                                      |  |

#### COMPATIBILITY

CircuitWorks<sup>®</sup> Boron Nitride Heat Sink Grease is generally compatible with most materials used in printed circuit board fabrication.

| Material                   | Compatibility |
|----------------------------|---------------|
| Ceramic                    | Good          |
| Clean Metals               | Good          |
| Glass                      | Good          |
| Silicone Resins            | Good          |
| Painted Surfaces           | Good          |
| Plastic Surfaces           | Good          |
| Vulcanized Silicone Rubber | Good          |

## USAGE INSTRUCTIONS

For industrial use only.

Read MSDS carefully prior to use.

### Application:

Apply CircuitWorks® Boron Nitride Heat Sink Grease directly to surface or use the application tip. Remove cap from syringe and gently depress the plunger. Spread the material in a thin layer on all mounting and threaded surfaces of the device and the chassis.

**Clean-Up:** Wipe away excess material using a Chemtronics® ControlWipes™ and thoroughly clean the surface using Chemtronics® Electro-Wash® PX.

## TECHNICAL & APPLICATION ASSISTANCE

ITW Chemtronics® provides a technical hotline to answer your technical and application related questions. The toll free number is: **1-800-TECH-401.**

## AVAILABILITY

**CW7250**

3.4 gm / 0.12 oz syringe

### ENVIRONMENTAL IMPACT DATA

|      |      |     |      |
|------|------|-----|------|
| ODP  | None | VOC | None |
| HCFC | 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.

### 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. ITW CHEMTRONICS® does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

### MANUFACTURED BY:

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