

CHEMTRONICS® Technical Data Sheet

TDS # CW7100

CircuitWorks® Silver Conductive Grease

PRODUCT DESCRIPTION

CircuitWorks® Silver Conductive Grease provides maximum electrical and thermal conductivity, proven lubrication properties, and protection from moisture, oxidation, and other environmental hazards. This system utilizes an advanced silicone lubricant that is compatible with metal, rubber, and plastic.

- High electrical conductivity
- Excellent thermal conductivity
- Provides protection against wear
- Remains stable in a wide temperature range; -70 to 485°F (-57 to 252°C)
- Protects against moisture and corrosion
- Very low viscosity vs. temperature change

TYPICAL APPLICATIONS

CircuitWorks® Silver Conductive Grease may be used for high and low power applications including:

- Lubrication of Substation Switches or Circuit Breakers
- Heat Dissipation from Transformers
- Low or Medium Speed Sliding Contacts
- Static Grounding on Seals or O-Rings
- Extending the Life of Rotating Switches

TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

Composition

Material	100% Silver Filled Silicone Grease
Color	Silver/Gray
Consistency	Smooth Paste

Properties

Volume resistivity	<0.01 ohm-cm
Thermal Conductivity (BTU-in/hr-ft ² -°F)	38.8
(CAL-cm/sec-cm ² -°C)	1.3 x 10 ⁻²
(W/m ² K)	5.6
Operating Temperature Range	-70 to 485°F (-57 to 252°C)
Unworked Penetration (ASTM D-1403) 77°F	210
Worked Penetration (ASTM D-1403, 60 Strokes)	250
Dropping Point (ASTM D-2266)	491°F (255°C)
Steel on Steel Wear (ASTM D-2266)	1.5mm
Corrosion on Copper	None
Moisture Resistance	Excellent
Chemical Resistance	Excellent
Electrical Conductivity	Excellent
Thermal Conductivity	Excellent
Lubrication Properties	Excellent
Protection from Oxidation	Excellent
Power Rating	High/Low
Shelflife	2 years

COMPATIBILITY

CircuitWorks[®] Silver Conductive Grease is generally compatible with metal, rubber, and plastic. As with any compound, compatibility with substrate should be determined on a non-critical area prior to use.

USAGE INSTRUCTIONS

Surface Preparation: For best results, clean parts to be lubricated with Chemtronics[®] Electro-Wash[®] PX cleaner in order to remove any surface contamination which may prevent adequate material contact.

Thinning: Do not attempt to thin.

Application:

Syringe: Remove cap and gently press on plunger. Apply CircuitWorks[®] Silver Conductive Grease directly to surface or use application tip.

Clean-Up: Electro-Wash[®] PX cleaner can be used to remove trace residues. Excess material may also be removed using a wipe such as the Chemtronics[®] ControlWipes[™]. Silver particles may stain porous materials.

WARNING:

To avoid shock or possible fire, stop power to any system before applying conductive grease. Insure positive and negative contacts remain isolated. Improper use can result in shorting, arcing, or shock.

AVAILABILITY

CW7100 6.5g / 0.23 oz. Syringe

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.**

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.

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