

## Black Ice 712

### Thermally and Electrically Conductive Compound

#### Product Description

*Black Ice 712 is a Silicone based reworkable, carbon filled, Low Cost thermally and electrically conductive grease. Engineered with specially selected sized and shaped pure carbon particles to maximize particle-to-particle contact for efficient heat transfer and low resistivity.*

#### Key Features and Benefits

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| • <i>Low Cost, Thermally and Electrically Conductive.</i>             |
| • <i>Low Interface Thermal Resistance. (0.023°C-In<sup>2</sup>/W)</i> |
| • <i>High Thermal Conductivity, (2.2 W/m. °K)</i>                     |
| • <i>Low Resistivity, (&lt; 25 Ohm-cm. )</i>                          |
| • <i>Exceptionally low bleed and evaporation.</i>                     |
- Will Not Harden, Dry Out or Melt.
  - EMI Seal.
  - Reworkable /Easy to Remove.
  - Easy to Dispense.

#### Typical Applications

1. Ideal for low power electronics applications including static drains, grounding, “soft” electronic connections, heat dissipation requirements and assembly protection.
2. For efficient cooling, use between modern **high-power CPUs** and high performance heat sinks or water-cooling solutions.
3. Used in high power electrical applications to improve the operational efficiency of high power switches, circuit breakers, knife blade switches and other sliding metal contacts.
4. Efficient dissipation of heat from power electronic components such as power resistor, rectifiers, transistors, and transformers.

#### Shelf-Life

*Black Ice 712* has a shelf-life of 5 years at room temperature (25°C) in unopened containers. Slight settling of the filler may occur during long-term storage. In this case, it is recommended to re-disperse the filler by hand or mechanical mixing. Refrigerate material at 0-10°C to avoid any settling.

#### Clean Up

Standard approved clean-up and disposal procedures should be followed in every situation. The use of disposable containers and utensils are recommended whenever possible to simplify and expedite clean-up. However, when disposable containers are impractical, *Black Ice 712* can be removed by cleaning solvents with such as Mineral Spirit (Paint Thinner), Heptane or Isopropyl Alcohol.

#### Typical Properties

<i>Property</i>	<i>Value</i>
Viscosity:	Thixotropic Paste
Specific Gravity, @ 25°C	1.3
Color:	Black
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.2
Thermal Conductivity, (ASTM D5470)	
<b>W/m.°K</b>	<b>2.2</b>
<b>Thermal Resistance (°C-In<sup>2</sup>/W)</b>	<b>0.02</b>
<b>Electrical Properties :</b>	
Volume Resistivity. (ASTM-D257) Ohm-cm.	<25
Operating Temperature Range	-55°C to 200°C