

## *Silver Ice 710NS*

### *Thermally and Electrically Conductive Compound*

#### Product Description

Silver Ice 710NS is a Non-Silicone based reworkable, silver filled thermally and electrically conductive grease. Engineered with specially selected pure silver particles to maximize particle-to-particle contact for most efficient heat transfer and low resistivity. Low viscosity and excellent wetting property make perfect candidate where application requires thin bond line thickness and film remains wet and greasy during service temperature.

#### Key Features and Benefits

- |   |
|---|
| • <i>Thermally and Electrically Conductive.</i>                                     |
| • <i>Low Interface Thermal Resistance. (0.005°C-In<sup>2</sup>/W)</i>               |
| • <i>High Thermal Conductivity, (7.0 W/m. °K)</i>                                   |
| • <i>Low Resistivity, (&lt; 0.01 Ohm-cm. )</i>                                      |
| • <i>Exceptionally low bleed and evaporation.</i>                                   |
| • <i>Non-Silicone Advantages/No creep or Migration over wide temperature range.</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

*Silver Ice 710NS* 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, *Silver Ice 710NS* 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	4.0
Color:	Silver/Gray
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.4
Thermal Conductivity, (ASTM D5470)	
Cal/Sec. Cm.°C	167 x 10 <sup>-4</sup>
BTU .In/(Hr.Ft <sup>2</sup> . °F)	48
<b>W/m.°K</b>	<b>7.0</b>
<b>Thermal Resistance (°C-In<sup>2</sup>/W )</b>	<b>0.005</b>
<b>Electrical Properties :</b>	N/A
Dielectric strength. (ASTM-D150) 0.05” gap, V/mil	
Dielectric constant. (ASTM-D150) 25°C @ 1,000 Hz.	N/A
Dissipation factor. (ASTM-D150) 25°C @ 1,000 Hz.	N/A
Volume Resistivity. (ASTM-D257) Ohm-cm.	<0.010
Operating Temperature Range	-55°C to 200°C