

Blue Ice 412

Non-Silicone Thermal Compound

Product Description

Blue Ice 412 compound grease-like NON-SILICONE, NON-FLOWABLE material heavily filled with heat-conductive metal oxides. These combinations provide high thermal conductivity, low bleed and high temperature stability.

Blue Ice 412 has been engineered to solve the problems of contamination and migration associated with silicone-based products. Unique polysynthetic-based thermal grease used to insure quick, efficient heat transfer and dissipation for the full operational life of your hardware.

Key Features and Benefits

- *Low Interface Thermal Resistance. (0.03 °C-In² /W)*
 - *High Thermal Conductivity. (2.0W/m. °K)*
 - *High dielectric strength.*
 - *Exceptionally low bleed and evaporation.*
 - *Non-Silicone Advantages/No creep or Migration over wide temperature range.*
- Reworkable/Easy to Remove.
 - Easy to Dispense.

Typical Applications

Blue Ice 412 Heat sink compound is applied to the base and mounting studs of transistors, diodes and silicone controlled rectifiers. In these situations, a small amount of thermal grease is using either dispensing or screen printing/stencil methods. It can be used as a high-voltage corona suppressant/non-flammable coating, in connections for fly back transformers in TV sets and similar design applications. It also used in mounting semi-conductor devices; thermoelectric modules; power transistors and diodes; coupling entire heat generating assemblies to chassis; heat transfer medium on ballasts; thermal joints; thermocouple wells; mounting power resistors; and for any devices where efficient cooling is required in major industries including, electronic (computer, appliance, wireless, etc.), automotive and electrical.

Shelf-Life

Blue Ice 412 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, re-disperse the filler by hand or with 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, *Blue Ice 412* 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	2.7
Color:	White
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.5
Thermal Conductivity, (ASTM-D5470)	
W/m.°K	2.0
Thermal Resistance (°C-In²/W)	0.03
Electrical Properties :	392
Dielectric strength. (ASTM D150) 0.05" gap, V/mil	
Dielectric constant. (ASTM D150) 25°C @ 1,000 Hz.	4.5
Dissipation factor. (ASTM D150) 25°C @ 1,000 Hz.	0.003
Volume Resistivity. (ASTM D257) Ohm-cm.	2.1x 10 ¹⁴
Operating Temperature Range.	-55°C to 200°C