

Blue Ice 410

Non-Silicone Thermal Compound

Product Description

Blue Ice 410 Heat Sink Compound is grease-like NON-SILICONE, non-migrating material heavily impregnated with heat-conductive metal oxides. This formulation provides high thermal conductivity, low bleed and high temperature stability.

Blue Ice 410 has been engineered to solve the problems of contamination and migration associated with silicone-based products. A unique poly synthetic-based thermal grease use to insure quick, efficient heat transfer and dissipation for the full operational life of your hardware.

Key Features and Benefits

- *Non-Silicone Advantages/No creep or Migration over wide temperature range.*
 - *Low Interface Thermal Resistance. 0.05 (°C-In²/W)*
 - *High Thermal Conductivity, High dielectric strength.*
 - *Exceptionally low bleed and evaporation.*
 - *Meets MIL-C-47113 & MIS-19846 specifications.*
- Will Not Harden, Dry Out or Melt.
 - Will Not Contaminate Solder Bath or Other Devices.
 - Reworkable/Easy to Remove.
 - Easy to Dispense.

Typical Applications

Blue Ice 410 heat sink compound applied to the base and mounting studs of transistors, diodes and silicone controlled rectifiers. In these situations, a small amount of the thermal grease is applied using either the dispensing or screen printing/stencil methods. *Blue Ice 410* can be used as a high-voltage corona suppressant/non-flammable coating, in connections for fly back transformers located in TV sets and similar design applications. It is 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 410 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, *Blue Ice 410* can be removed by cleaning solvents 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. | 0.3 |
| Thermal Conductivity, (ASTM D5470Mod) | |
| W/m.°K | 0.8 |
| Thermal Resistance (°C-In²/W) | 0.05 |
| <u><i>Electrical Properties :</i></u> | 350 |
| Dielectric strength. (ASTM D150) 0.05" gap, V/mil | |
| Dielectric constant. (ASTM D150) 25°C @ 1,000 Hz. | 4.65 |
| Dissipation factor. (ASTM D150) 25°C @ 1,000 Hz. | 0.0026 |
| Volume Resistivity. (ASTM D257) Ohm-cm. | 1.8 x 10 ¹⁴ |
| Operating Temperature Range. | -55°C to 200°C |