ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

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NTE424
Non–Silicone Heat Sink Compound
1 oz. Plunger Tube

Description:

NTE424 heat sink compound is a 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.

NTE424 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 (0.03°C–In^2/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
- Non–Toxic
- Reworkable/Easy to Remove
- Easy to Dispense

Typical Properties:

Viscosity	Thixotropic Paste
Specific Gravity @ +25°C	2.7
Color	White
Evaporation @ +200°C, 24 Hours, %/Wt.	0.3
Thermal Conductivity, (ASTM D5470)	
Cal/Sec. Cm. °C	23 x 10^{-4}
BTU.In/(Hr.Ft^2.°F)	6.9
W/m.°K	1.0
Thermal Resistance (°C–In^2/W)	0.03

Electrical Properties:

Dielectric Strength (ASTM D150) 0.05” gap, V/mil	350
Dielectric Constant (ASTM D150) +25°C @ 1000Hz	4.65
Dissipation Factor (ASTM D150) +25°C @ 1000Hz	0.0026
Volume Resistivity (ASTM D257) Ohm–cm	1.8 x 10^{14}
Operating Temperature Range	–55° to +200°C

Rev. 1–13

Typical Applications:
The NTE424 heat sink compound is applied to the base and mounting studs of transistors, diodes and silicon controlled rectifiers (SCRs). In these situations, a small amount of the thermal grease is applied using either the dispensing of screen printing/stencil methods. NTE424 can be used as a high−voltage corona suppressant/non−flammable coating, in connections for flyback transformers located in TV sets and similar design applications. It is also used in mounting semiconductor 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:
The NTE424 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° to +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, NTE424 can be removed by cleaning solvents such as Mineral Spirit (Paint Thinner), Heptane or Isopropyl Alcohol.