



ISO 9001-2015 Certified

## TECHNICAL BULLETIN

### TG-69

### NON-SILICONE THERMAL GREASE

#### Product Description

**TG-69 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.

**TG-69** 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.**
- **High Thermal Conductivity. (3.5W/m. °K)**
- **High dielectric strength.**
- **Exceptionally low bleed and evaporation.**
- **No creep or Migration over wide temperature range.**
- **Reworkable/Easy to Remove.**
- **Easy to Dispense.**

#### Typical Applications

**TG-69 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.

#### Typical Properties

Property	Value
Viscosity:	Thixotropic Paste
Specific Gravity, @ 25°C	2.7
Color:	White
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.5
Thermal Conductivity, (ASTM-D5470)	
<b>W/m.°K</b>	<b>3.5</b>
<b>Thermal Resistance (°C-In<sup>2</sup>/W)</b>	<b>0.02</b>
<b>Electrical Properties:</b>	410
Dielectric strength. (ASTM D150) 0.05" gap, V/mil	
Dielectric constant. (ASTM D150) 25°C @ 1,000 Hz.	4.6
Dissipation factor. (ASTM D150) 25°C @ 1,000 Hz.	0.003
Volume Resistivity. (ASTM D257) Ohm-cm.	2.1x 10 <sup>15</sup>
Operating Temperature Range.	-55°C to 200°C

#### Shelf-Life

**TG-69** has a shelf-life of 2 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, **TG-69** can be removed by cleaning solvents with such as Mineral Spirit (Paint Thinner), Heptane or Isopropyl Alcohol.