HIGH VISCOSITY THERMAL PUTTY

TECHNICAL DATA SHEET (TDS)

Product Overview

PRION High Viscosity Thermal Putty is a premium-grade, highly efficient thermal interface material specifically engineered for high-performance electronic systems, LED modules, and advanced circuit boards (PCBs). Designed to fill irregular gaps, air pockets, and micro-spaces between heat-generating components and their enclosures or heatsinks, it ensures rapid and uniform heat dissipation to protect sensitive electronics from thermal stress.

Key Advantage: Formulated with superior non-conductive electrical properties, PRION Thermal Putty provides exceptional safety with minimal electrical leakage, outperforming standard market alternatives in high-voltage industrial applications.

Key Applications

High-Power LED Modules: Facilitates ultra-fast heat transfer to the outer casing, significantly extending LED lifespan and maintaining lumen efficiency.

Electronic Control Units (ECUs) & PCBs: Ideal for complex components with variable heights where traditional thermal pads fail to conform.

• **Automotive & Defense Electronics:** Provides stable thermal connection under heavy vibration and mechanical shocks.ı

• **Power Supplies & Inverters:** Dissipates concentrated heat loads safely away from MOSFETs and power transistors.

Features & Benefits

- **Excellent Thermal Conductivity:** Accelerates heat transfer directly to the chassis or cooling element.
- **High Electrical Isolation:** Engineered to eliminate short circuits, offering superior dielectric breakdown resistance compared to conventional alternatives.
- **High Conformance & Low Compression Stress:** Easily flows into complex microstructures without putting structural pressure on delicate solder joints.
- **No Curing or Drying:** Maintains its optimal semi-solid putty consistency indefinitely without cracking or separating over time.

Technical Specifications

Property	Value / Specification	Test Method
Appearance / Color	White Semi-Solid Putty	Visual
Viscosity Type	High Viscosity / Non-Sag	Internal Standard
Electrical Conductivity	Ultra-Low (High Dielectric Isolation)	ASTM D149
Thermal Conductivity	High Efficiency Range	ASTM D5470
Net Weight	1 kg	Packaging Scale
Operating Temperature	-50°C ila +180°C	Continuous Reliability

Usage & Application Guidelines

Ensure all contact surfaces are clean, dry, and free of dust or grease prior to application. Apply the required amount of PRION Thermal Putty directly onto the component or the heatsink enclosure. Assemble the unit; the putty will naturally deform and adapt perfectly to the component profile under standard fastening pressure.
Excess material can be wiped clean easily.

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