

QiFlo™ HP1 - High Performance Thermal Grease

Description

QiFlo™ HP1 is a thermally conductive grease for maximum heat transfer applications.

The compound utilizes low concentrations of ultra-high thermally conductive proprietary materials to provide a highly reliable and high performing thermal interface material.

This material is ideal for low bond line thicknesses where heat dissipation is a critical requirement.

Key Features

- Thermal resistance: <math><0.002\text{ }^{\circ}\text{C-in}^2/\text{W}</math>
- Pump-out resistant
- Low bond line thicknesses
- High reproducibility and reliability
- Long term durability (>1000 cycles)
- High temperature performance and stability

Typical Applications

- Microprocessors
- LED assemblies
- Power electronics
- Other high thermal load applications

Patent Protection

- Protected under US Patent # 9346991 and Japanese Patent # 5809349. Patent pending.

Material Properties

Property	QiFlo™ HP1
Description	Thermally Conductive Grease
Form	Non-curing compound
Viscosity (3 – 12 RPM)	65,000 – 100,000 cP
Density	1.05 g/cc
Color	Black
Thermal resistance (ASTM D5470)	0.002 °C-in ² /W
Thermal conductivity	5.7 W/m-K
Volume resistivity (ASTM D257, Room temperature)	>1 x 10 ⁷ Ω-cm
Mix ratio	1 part (no mixing)
Shelf Life	6 months

Application Methods

1. Use proper surface preparation for your application and ensure interface surfaces are dry and free of dust before application of QiFlo™ HP1.
2. Dispense QiFlo™ HP1 onto clean interface surface.
3. Clamp interfacing surfaces together with uniform pressure and remove excess grease with deionized water.

Long Term Durability

Test	Result
Shelf Life	1 year
Thermal Cycling -45 to 155 °C	$R_T = 0.002\text{ }^{\circ}\text{C-in}^2/\text{W}$ after 900 cycles