

QiFlo™ ER1 Thermal Grease

Description

QiFlo™ ER1 is an electrically insulating, thermally conductive material for demanding applications.

The compound utilizes low concentrations of highly thermally conductive, but electrically insulative proprietary materials to provide a highly reliable and high performing thermal interface material.

This material is ideal for applications where high electrical resistance and low thermal resistance are critical.

Key Features

- Thermal resistance: 0.005 °C-in²/W
- Electrical resistance: >1 x 10¹⁵ Ω-cm
- Pump-out resistant
- Low bond line thicknesses
- High reproducibility and reliability
- Long term durability (>1000 cycles, -45 to 165 °C)
- High temperature performance and stability

Typical Applications

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

Material Properties

Property	QiFlo™ ER1
Description	Thermally Conductive Grease
Form	Non-curing compound
Viscosity (3 – 12 RPM)	85,000 – 170,000 cP
Density	1.09 g/cc
Color	Gray
Thermal resistance (ASTM D5470)	0.005 °C-in ² /W
Thermal conductivity	>4.9 W/m-K
Volume resistivity (ASTM D257, Room Temperature)	>1 x 10 ¹⁵ Ω-cm
Mix ratio	1 part (no mixing)
Shelf Life	6 months
Thermal Resistance after 250 °C soak for 24 hours	0.005 °C-in ² /W @ 20 PSI

Application Methods

1. Use proper surface preparation for your application and ensure interface surfaces are dry and free of dust before application of QiFlo™ ER1.
2. Dispense QiFlo™ ER1 onto clean interface surface.
3. Clamp interfacing surfaces together with uniform pressure and remove excess grease with deionized water.

Patent Protection

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