



DUPONT™ TEMPRION™ TG0500

NON-SILICONE THERMAL GREASE

DESCRIPTION

DuPont™ Temprion™ TG0500 is a non-silicone thermal grease possessing the highest resistance to pump out, outgassing, and overall thermal degradation of our Temprion™ thermal grease offerings. The silicone-free formulation of Temprion™ TG0500 eliminates concerns of silicone deposition on optics and electronics within any package.

The high thermal stability of Temprion™ TG0500 makes it suitable for applications with elevated operating temperatures where migration of product or redeposition of material is unacceptable.

APPLICATIONS

- Thermal interface material
- Heat sink compound
- CPU/GPU
- IGBT
- LED

FEATURES

- High thermal stability with minimal:
 - Pump out
 - Outgassing
- Compatible with polymer and metal substrates
- Non-flammable

Table 1 – Typical Properties of DuPont™ Temprion™ TG0500

| Property | TG0500 | Test Method |
|-------------------------------------------------------------------------------------|------------------------|---------------|
| Thermal Conductivity, W/m•K | 0.7 | ASTM D5470 |
| Thermal Resistance, °C•cm ² /W (°C•in ² /W) @ 1 MPa (145 psi) | 0.25 (0.04) | ASTM D5470 |
| Viscosity @ 20 s ⁻¹ and 25 °C, cP | 200,000 | ASTM D445 |
| Specific Gravity @ 25 °C, g/cm ³ | 2.4 | ASTM D1475 |
| Bleed, 24 h @ 200 °C, wt% | 0.0 | FTM321 |
| Evaporation, 24 h @ 200 °C, wt% | 0.05 | FTM321 |
| Dielectric Strength, kV/mm (kV/mil) | 13.8 (0.35) | ASTM D149 |
| Dielectric Constant, @ 1 MHz | 4.86 | ASTM D150 |
| Volume Resistivity, Ω•cm | > 7 x 10 ¹³ | ASTM D257 |
| Flammability | Non-flammable | DuPont Method |
| RoHS Compliant | Yes | N/A |

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-4.

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