

TGZ - Thermal Grease/Gel Series

Thermal Properties

| | TGZ10 | TGZ20 | TGZ30 | TGZ50 | Test Method |
|--|---------|---------|----------|---------|-------------|
| Thermal Conductivity, W/m·K | 1 ± 0.2 | 2 ± 0.2 | 3 ± 0.25 | 5 ± 0.2 | ASTM D5470 |
| Thermal Resistance, °C·in ² /W @ 20 psi | 0.25 | 0.12 | 0.08 | 0.04 | |

Physical Properties

| Appearance | BLUE | GREEN | PINK | GREY | Visual | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|-----------------|---|
| Viscosity mPa·s@25°C | 5,000,000 | 6,000,000 | 3,000,000 | 3,000,000 | Rheometer DHR-2 | |
| Temperature Range, °F (°C) | -58 - 392 (-50 - 200) | -58 - 392 (-50 - 200) | -58 - 392 (-50 - 200) | -58 - 392 (-50 - 200) | — | |
| Density, lb _m /in ³ (g/cc) | 2.4 ± 0.2 | 2.8 ± 0.2 | 3.2 ± 0.2 | 3.2 ± 0.2 | ASTM D792 | |
| Solubility in Water, % @ 200°C, 24hr | .3 max | .2 max | .2 max | .2 max | SH/T0324-92 | |
| Curing Temperature, °F (°C) | 266 (130) | 266 (130) | 266 (130) | 266 (130) | — | |
| Curing Time, min | 60 | 60 | 60 | 60 | — | |
| Volatilize Point, ppm @ 220°C, 24 hr | 300 max | 200 max | 200 max | 200 max | GB269-85 | |
| Coverage Area Per Gram, cm ² /g | @ 1 mil thickness | 16 | 14 | 12.7 | 13 | — |
| | @ 2 mil thickness | 8 | 7 | 6.35 | 6.5 | |
| | @ 5 mil thickness | 3.2 | 4.4 | 2.54 | 2.6 | |
| | @ 10 mil thickness | 1.6 | 1.4 | 1.27 | 1.3 | |

Electrical Properties

| | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------|
| Volume Resistivity, Ω·cm | 1.0x10 ¹⁴ min | 1.0x10 ¹⁴ min | 1.0x10 ¹⁴ min | 1.0x10 ¹⁴ min | Q/SC004-06 GB1410-89 |
| Breakdown Voltage, kV | 8 min | 8 min | 8 min | 2.5 min | Q/SC004-06 GB1410-89 |

Regulatory Properties

| | | | | | |
|------------------------------------|-----|-----|-----|-----|---|
| RoHS Compliant | Yes | Yes | Yes | Yes | — |
| Shelf Life, (@25 °C) months @ 25°C | 6 | 6 | 6 | 6 | — |