

TIM-LGF-2004

Thermally Conductive, Two Part Silicone Liquid Gap Filler

DESCRIPTIONS

TIM-LGF-2004 is thermally conductive liquid gap filler materials formulated to provide a balance of cured material properties with “gel-like” modules and good compression set or memory. This Form-in-Place liquid gap filler is ideal for applying any thickness. Unlike cured thermal pad, a liquid approach offers infinite thickness variations with little or no stress to sensitive components during assembly process..

TIM-LGF-2004 flows under pressure like grease, easily cures at room or elevated temperature and form in soft rubber/gel and adheres to most surfaces, forms shapes and sizes of components with very low compression force. It eliminates multiple pad thickness and die-cut shapes for individual applications. It can be applied like grease, easily dispensable from wide range of commercially available equipment.

KEY FUTURES AND BENEFITS

- **Thermal Conductivity (2.0 W/m-K)**
- Ultra-conforming, wet-out. Designed for fragile and low stress applications
- Extended working time for mfg flexibility
- Relieves CTE Stress during thermal cycling

APPLICATIONS

- Interface for semiconductors requiring low pressure or spring clamp mounting
- Flip chip microprocessors, Graphic chips
- PPGA's, BGA, Micro BGA, DSP chips, LED
- Automotive electronics (ECU's)
- Thermally conductive vibration dampening

AVAILABILITY

50cc & 400cc dual Syringes/Cartridges, 2 gallon & 10 gallons Kits

| Property | Test Method | Value |
|------------------------------|-------------|--|
| Type | | Two Parts Silicone, curable |
| Special Futures | | High Viscosity, thixotropic, No Slump |
| Color | Visual | Pink |
| Mixed Viscosity. PaS | Brookfield | 150 |
| Mix Ratio | | 1:1 |
| Specific Gravity | ASTM D792 | 2.8 |
| Hardness (Shore 00) | ASTM D2240 | 70 |
| Pot Life @ 25°C | | 60 min |
| Cure Time @ 25°C | | 24-48 hrs |
| Cure Time @ 100°C | | 20 min |
| Flammability (Equivalent) | UL 94 | V-0 |
| Operating Temperature Range. | | -55°C to 204°C |
| Shelf Life (Unopened) | | 12 months |
| THERMAL | | |
| Thermal Conductivity (W/m-K) | ASTM D5470 | 2.0 |
| ELECTRICAL | | |
| Breakdown Voltage (KV/mm) | ASTM D149 | 12 |
| Volume Resistivity (Ohm-m) | ASTM D257 | 10 ¹² |

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