

Sil-Pad® 2000

April 2015

PRODUCT DESCRIPTION

Higher Performance,
High Reliability Insulator

FEATURES AND BENEFITS

- Thermal impedance: 0.33°C-in²/W (@50 psi)
- Optimal heat transfer
- High thermal conductivity: 3.5 W/m-K



Sil-Pad® 2000 is a high performance, thermally conductive insulator designed for demanding aerospace and commercial applications.

Sil-Pad® 2000 is a silicone elastomer formulated to maximize the thermal and dielectric performance of the filler/binder matrix. The result is a grease-free, conformable material capable of meeting or exceeding the thermal and electrical requirements of high-reliability electronic packaging applications.

Note: To build a part number, visit our website at www.bergquistcompany.com.

TYPICAL PROPERTIES OF SIL-PAD 2000

| PROPERTY | IMPERIAL VALUE | METRIC VALUE | TEST METHOD | | | |
|---|------------------|------------------|-------------|------|------|------|
| Color | White | White | Visual | | | |
| Reinforcement Carrier | Fiberglass | Fiberglass | — | | | |
| Thickness (inch) / (mm) | 0.010 to 0.020 | 0.254 to 0.508 | ASTM D374 | | | |
| Hardness (Shore A) | 90 | 90 | ASTM D2240 | | | |
| Continuous Use Temp (°F) / (°C) | -76 to 392 | -60 to 200 | — | | | |
| ELECTRICAL | | | | | | |
| Dielectric Breakdown Voltage (Vac) | 4000 | 4000 | ASTM D149 | | | |
| Dielectric Constant (1000 Hz) | 4.0 | 4.0 | ASTM D150 | | | |
| Volume Resistivity (Ohm-meter) | 10 ¹¹ | 10 ¹¹ | ASTM D257 | | | |
| Flame Rating | V-O | V-O | U.L.94 | | | |
| THERMAL | | | | | | |
| Thermal Conductivity (W/m-K) | 3.5 | 3.5 | ASTM D5470 | | | |
| THERMAL PERFORMANCE vs PRESSURE | | | | | | |
| | Pressure (psi) | 10 | 25 | 50 | 100 | 200 |
| TO-220 Thermal Performance (°C/W) 0.010" | | 2.61 | 2.32 | 2.02 | 1.65 | 1.37 |
| Thermal Impedance (°C-in ² /W) 0.010" (1) | | 0.57 | 0.43 | 0.33 | 0.25 | 0.20 |
| <small>1) The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.</small> | | | | | | |

TYPICAL APPLICATIONS INCLUDE

- Power supplies
- Motor controls
- Power semiconductors
- Aerospace
- Avionics

CONFIGURATIONS AVAILABLE

- Sheet form, die-cut parts
- With or without pressure sensitive adhesive

Disclaimer

Note:

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Reference 0.1