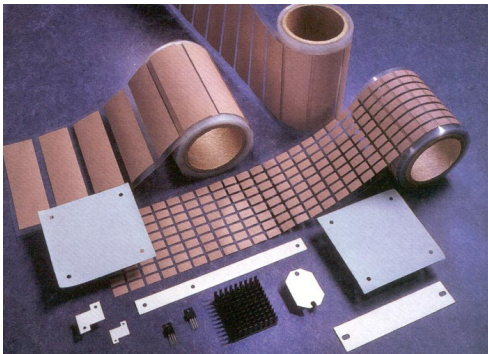


Features and Benefits

- Thermal impedance
0.32°C-in²/W (@50 psi)
- Optimal heat transfer
- High thermal conductivity
3.5 W/m-K



Sil-Pad A2000 is a conformable elastomer with very high thermal conductivity that acts as a thermal interface between electrical components and heat sinks. Sil-Pad A2000 is for applications where optimal heat transfer is a requirement.

This thermally conductive silicone elastomer is 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.

Typical Applications Include

- Motor Drive Controls
- Avionics
- High Voltage Power Supplies
- Power Transistor / Heat Sink Interface

Typical Properties of Sil-Pad A2000

| Property | Imperial Value | Metric Value | Test Method | | | |
|--|------------------|------------------|-------------|------|------|------|
| Color | White | White | Visual | | | |
| Reinforcement Carrier | Fiberglass | Fiberglass | *** | | | |
| Thickness, (inch) / (mm) | 0.011 to 0.020 | 0.279 to 0.508 | ASTM D374 | | | |
| Hardness, (Shore A) | 90 | 90 | ASTM D2240 | | | |
| Heat Capacity, (J/g-K) | 1.0 | 1.0 | ASTM C351 | | | |
| Continuous Use Temp., (°F) / (°C) | -76 to 392 | -60 to 200 | *** | | | |
| Electrical | Imperial Value | Metric Value | Test Method | | | |
| Dielectric Breakdown Voltage, (VAC) | 4000 | 4000 | ASTM D149 | | | |
| Dielectric Constant, (1000 Hz) | 7.0 | 7.0 | ASTM D150 | | | |
| Volume Resistivity, (Ohm-meter) | 10 ¹¹ | 10 ¹¹ | ASTM D257 | | | |
| Flame Rating | 94 V-O | 94 V-O | U.L. | | | |
| Thermal | Imperial Value | Metric Value | Test Method | | | |
| Thermal Conductivity, (W/m-K) | 3.0 | 3.0 | ASTM D5470 | | | |
| Thermal Impedance vs. Pressure | | | | | | |
| | Pressure (psi) | 10 | 25 | 50 | 100 | 200 |
| TO-220 Thermal Performance, (°C/W) | 0.011" | 2.06 | 1.93 | 1.82 | 1.77 | 1.71 |
| TO-220 Thermal Performance, (°C/W) | 0.015" | 2.05 | 1.94 | 1.86 | 1.79 | 1.72 |
| TO-220 Thermal Performance, (°C/W) | 0.020" | 2.51 | 2.46 | 2.41 | 2.34 | 2.24 |
| Thermal Impedance, (°C-in ² /W) (I) | 0.011" | 0.46 | 0.36 | 0.32 | 0.28 | 0.25 |
| Thermal Impedance, (°C-in ² /W) (I) | 0.015" | 0.53 | 0.40 | 0.32 | 0.28 | 0.26 |
| Thermal Impedance, (°C-in ² /W) (I) | 0.020" | 0.62 | 0.52 | 0.51 | 0.44 | 0.41 |

1). The ASTM D5470 (Bergquist Modified) test fixture was used. The recorded value includes interfacial thermal resistance. These values are given to the customer for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

Configurations

Available:

- Sheet form
- Die-Cut parts
- With or without pressure sensitive adhesive
- Variety of thickness gages to meet customer requirements
Preferred thickness includes 0.011”, 0.015”, and 0.020”

We produce thousands of specials. Tooling charges vary depending on tolerances and complexity of the part.

Sil-Pad[®]: U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others

Product Data Sheet / PDS-0602-001-01; Rev 01