

### Features and Benefits

- Thermal impedance:  
0.38°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.

| 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 <sup>11</sup> |      | 10 <sup>11</sup> |      | 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)                                                                                                                                                                                                                              |  | 2.61             | 2.32 | 2.02             | 1.65 | 1.37        |
| Thermal Impedance (°C-in²/W) (I)                                                                                                                                                                                                                               |  | 0.57             | 0.43 | 0.38             | 0.35 | 0.30        |
| I) 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. |  |                  |      |                  |      |             |

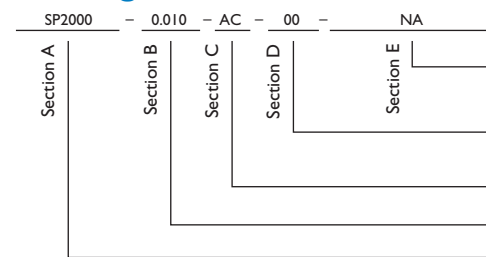
### Typical Applications Include:

- Power supplies
- Power semiconductors
- Avionics
- Motor controls
- U.L. File Number E59150
- Aerospace

### Configurations Available:

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

### Building a Part Number



### Standard Options

◀ example

NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

— = Standard configuration dash number, 1212 = 12" x 12" sheets, or 00 = custom configuration

AC = Adhesive, one side  
00 = No adhesive

Standard thicknesses available: 0.010", 0.015", 0.020"

SP2000 = Sil-Pad 2000 Material

Note: To build a part number, visit our website at [www.bergquistcompany.com](http://www.bergquistcompany.com).

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