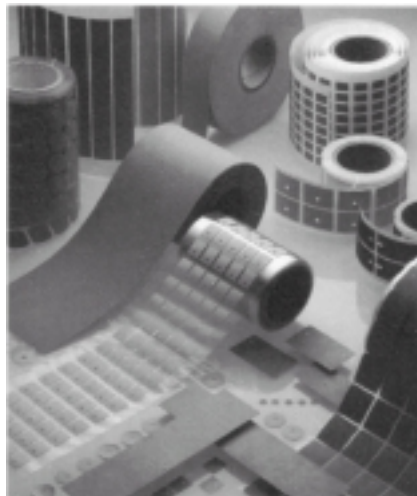


Sil-Pad[®] A2000

High Performance, High Reliability Thermally Conductive Interface Material

Sil-Pad A2000 (SPA-2000) is a conformable elastomer with very high thermal conductivity that acts as a thermal interface between electrical components and heat sinks. SPA-2000 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

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

Area where heat needs to be transferred to a frame, chassis, or other type of heat spreader.

Typical Properties of Sil-Pad A2000

| Property | Typical Value | Test Method | | | |
|--|------------------|-------------|------|------|------|
| Color | White | Visual | | | |
| Thickness | 0.010” to 0.125” | ASTM D374 | | | |
| Specific Gravity | 3.2 g/cc | ASTM D792 | | | |
| Hardness (Shore Type A) | 90 | ASTM D2240 | | | |
| Heat Capacity | 1.0 J/g-K | ASTM C351 | | | |
| Continuous Use Temp. | -60°C to 200°C | | | | |
| Electrical | | | | | |
| Dielectric Breakdown Voltage | 4000 AC-minimum | ASTM D149 | | | |
| Dielectric Constant | 7 | ASTM D150 | | | |
| Volume Resistivity, Ohm-meter | 10 ¹¹ | ASTM D257 | | | |
| Flame Rating | 94V-0 (pending) | U.L. | | | |
| Thermal | | | | | |
| Thermal Conductivity | 3.5 W/m-K | ASTM D5470 | | | |
| Thermal Impedance vs. Pressure | | | | | |
| Pressure (psi) | 10 | 25 | 50 | 100 | 200 |
| TO-220 Thermal Performance, °C/W | 2.48 | 2.22 | 1.75 | 1.42 | 1.33 |
| Thermal Impedance Per ASTM D5470, °C-in ² / W (1) | 0.46 | 0.26 | 0.24 | 0.22 | 0.20 |

1). The ASTM D5470 (Bergquist Corrected) 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.

SPECIAL THICKNESS

SP A2000 is available in a variety of thickness gages to meet customer requirements. Preferred thickness includes 10, 15, and 20 mil. Please contact Inside Sales for additional thickness information.

TOLERANCES

0.015 inch tolerances are held on width, length, hole diameters and hole locations. Please contact your sales representative if tighter tolerances are required.

OPTIONS

SP A2000 is available in sheet or die-cut form, with and without pressure sensitive adhesive. Standard sheet sizes of 8” x 8”, 8” x 12”, 10” x 10”, and 8” x 16” are available with and without pressure sensitive adhesive.

Rev: October 1, 2001



www.bergquistcompany.com

The Bergquist Company
North American Headquarters
18930 West 78th Street
Chanhassen, MN 55317
Phone: 800-347-4572
Fax: 952-835-4156

The Bergquist Company-Europe
Bramenberg 9a
3755 BT Eemnes
Netherlands
Phone: 31-35-5380684
Fax: 31-35-5380295

The Bergquist Company-Asia
9F-1, No.314, Section 4
Ren Ai Road
Taipei, Taiwan, ROC 106
Phone: 886-2-2700-7796
Fax: 886-2-2700-7795

All statements, technical information and recommendations herein are based on tests we believe to be reliable, and THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MARKETABILITY AND FITNESS FOR PURPOSE. Sellers' and manufacturers' only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability whatsoever in connection therewith. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL, OR CONSEQUENTIAL, INCLUDING LOSS OF PROFITS OR REVENUE ARISING OUT OF THE USE OR THE INABILITY TO USE A PRODUCT. No statement, purchase order or recommendations by seller or purchaser not contained herein shall have any force or effect unless in an agreement signed by the officers of the seller and manufacturer.