Gap Pad® 2000S40 is recommended for low-stress applications that require a mid to high thermally conductive interface material. The highly conformable nature of the material allows the pad to fill in air voids and air gaps between PC boards and heat sinks or metal chassis with stepped topography, rough surfaces and high stack-up tolerances.

Gap Pad® 2000S40 is offered with inherent natural tack on both sides of the material allowing for stick-in-place characteristics during application assembly. The material is supplied with protective liners on both sides. The top side has reduced tack for ease of handling.

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

### FEATURES AND BENEFITS
- **Thermal conductivity:** 2.0 W/m-K
- **Low “S-Class” thermal resistance at very low pressures**
- **Highly conformable, low hardness**
- **Designed for low-stress applications**
- **Fiberglass reinforced for puncture, shear and tear resistance**

### PRODUCT DESCRIPTION
Highly Conformable, Thermally Conductive, Reinforced “S-Class” Gap Filling Material

### TYPICAL PROPERTIES OF GAP PAD 2000S40

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>IMPERIAL VALUE</th>
<th>METRIC VALUE</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Gray</td>
<td>Gray</td>
<td>Visual</td>
</tr>
<tr>
<td>Reinforcement Carrier</td>
<td>Fiberglass</td>
<td>Fiberglass</td>
<td>—</td>
</tr>
<tr>
<td>Thickness (inch) / (mm)</td>
<td>0.020 to 0.125</td>
<td>0.508 to 3.175</td>
<td>ASTM D374</td>
</tr>
<tr>
<td>Inherent Surface Tack (1 side)</td>
<td>2</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>Density (Bulk Rubber) (g/cc)</td>
<td>2.9</td>
<td>2.9</td>
<td>ASTM D792</td>
</tr>
<tr>
<td>Heat Capacity (J/kg-K)</td>
<td>0.6</td>
<td>0.6</td>
<td>ASTM E1269</td>
</tr>
<tr>
<td>Hardness (Bulk Rubber) (Shore 00) (1)</td>
<td>30</td>
<td>30</td>
<td>ASTM D2240</td>
</tr>
<tr>
<td>Young’s Modulus (psi) / (kPa) (2)</td>
<td>45</td>
<td>310</td>
<td>ASTM D575</td>
</tr>
<tr>
<td>Continuous Use Temp (°F) / (°C)</td>
<td>-76 to 392</td>
<td>-60 to 200</td>
<td>—</td>
</tr>
</tbody>
</table>

#### ELECTRICAL
- **Dielectric Breakdown Voltage (Vac)**: >5000
- **Dielectric Constant (1000 Hz)**: 6.0
- **Volume Resistivity (Ohm-meter)**: $10^1$
- **Flame Rating**: V-O

#### THERMAL
- **Thermal Conductivity (W/m-K)**: 2.0
- **Thermal Impedance (°C-in²/W)**:
  - 0.040" (3) 0.97 0.89 0.80

#### TYPICAL APPLICATIONS INCLUDE
- Power electronics DC/DC; 1/4, 1/2, full bricks, etc.
- Mass storage devices
- Graphics card/processor/ASIC
- Wireline/wireless communications hardware
- Automotive engine/transmission controls

#### CONFIGURATIONS AVAILABLE
- Sheet form and die-cut parts

#### TYPICAL PROPERTIES OF GAP PAD 2000S40

<table>
<thead>
<tr>
<th>Thickness (inches) vs. Thermal Resistance Gap Pad 2000S40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance (°C-in²/W)</td>
</tr>
<tr>
<td>Thickness (inches)</td>
</tr>
<tr>
<td>0.20 0.50 1.50 1.00 2.00 2.50</td>
</tr>
</tbody>
</table>

1) Thirty second delay value Shore 00 hardness scale. 2) Young’s Modulus, calculated using 0.01 in/min. step rate of strain with a sample size of 0.79 inch. 3) 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.
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Reference 0.1