GAP PAD™ HC 5.0 is a soft and compliant gap filling material with a thermal conductivity of 5.0 W/m-K. The material offers exceptional thermal performance at low pressures due to a unique filler package and low-modulus resin formulation. The enhanced material is ideal for applications requiring low stress on components and boards during assembly. GAP PAD™ HC 5.0 maintains a conformable nature that allows for excellent interfacing and wet-out characteristics, even to surfaces with high roughness and/or topography.

GAP PAD™ HC 5.0 is offered with natural inherent tack on both sides of the material, eliminating the need for thermally-impeding adhesive layers. The top side has minimal tack for ease of handling. GAP PAD™ HC 5.0 is supplied with protective liners on both sides.

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

### TYPICAL PROPERTIES OF GAP PAD HC 5.0

<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>Violet</td>
<td>Violet</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, 0.040, 0.060, 0.080, 0.100, 0.125</td>
<td>0.508, 1.016, 1.524, 2.032, 2.540, 3.175</td>
<td>ASTM D374</td>
</tr>
<tr>
<td>Inherent Surface Tack</td>
<td>2</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>Density (Bulk Rubber) (g/cc)</td>
<td>3.2</td>
<td>3.2</td>
<td>ASTM D792</td>
</tr>
<tr>
<td>Heat Capacity (J/g-K)</td>
<td>1.0</td>
<td>1.0</td>
<td>ASTM E1269</td>
</tr>
<tr>
<td>Hardness (Bulk Rubber) (Shore 00)</td>
<td>35</td>
<td>35</td>
<td>ASTM 2240</td>
</tr>
<tr>
<td>Young’s Modulus (psi) / (kPa) (1)</td>
<td>17.5</td>
<td>121</td>
<td>ASTM D575</td>
</tr>
<tr>
<td>Typical 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) (3)**: 5000 / 5000
- **Dielectric Constant (1000 Hz)**: 8.0 / 8.0
- **Volume Resistivity (Ohm-meter)**: 10¹⁷ / 10¹⁸
- **Flame Rating**: V-O / V-O
- **U.L.94**

### THERMAL

- **Thermal Conductivity (W/m-K) (2)**: 5.0 / 5.0
- **Thermal Performance vs. Strain**

<table>
<thead>
<tr>
<th>Deflection (% strain)</th>
<th>10</th>
<th>20</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Impedance (°C-in²/W) (2)</td>
<td>0.35</td>
<td>0.30</td>
<td>0.26</td>
</tr>
</tbody>
</table>

### TYPICAL APPLICATIONS INCLUDE

- Telecommunications
- ASICs and DSPs
- Consumer electronics
- Thermal modules to heat sinks

### CONFIGURATIONS AVAILABLE

- Sheet form and die-cut parts

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1) Young’s Modulus, calculated using 0.01 in/min. step rate of strain with a sample size of 0.79 inch² after 5 minutes of compression at 10% strain on a 1mm thickness material.
2) 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.
3) Minimum value at 20 mil.
4) Thirty second delay value on Shore 00 hardness scale.
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