BERGQUIST GAP PAD TGP 6000ULM

March 2018

PRODUCT DESCRIPTION
A high performance, 6 W/m-K silicone thermal interface material with ultra low modulus.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Silicone</th>
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<tbody>
<tr>
<td>Appearance</td>
<td>Gray</td>
</tr>
<tr>
<td>Reinforcement Carrier</td>
<td>Fiberglass</td>
</tr>
<tr>
<td>Interface Tack</td>
<td>2 sides</td>
</tr>
<tr>
<td>Thickness</td>
<td>1.524 to 3.175mm</td>
</tr>
<tr>
<td>Application</td>
<td>Thermal management, TIM (Thermal Interface Material)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-60 to 200ºC</td>
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</table>

FEATURES AND BENEFITS
- Thermally conductive: 6.0 W/m-K
- High-compliance, low compression stress
- Ultra low modulus

BERGQUIST GAP PAD TGP 6000ULM is an extremely soft gap filling material rated at a thermal conductivity of 6.0 W/m-K. It is specially formulated for high performance applications requiring low assembly stress. The material offers exceptional thermal performance at low pressures due to the unique filler package and ultra low modulus resin formulation. BERGQUIST GAP PAD TGP 6000ULM is highly conformal, even to surfaces with high roughness and/or topography, allowing for excellent interfacing and wet-out characteristics.

BERGQUIST GAP PAD TGP 6000ULM is offered with a higher natural inherent tack on both sides of the material, eliminating the need for thermally-impeding adhesive layers and allowing for stick-in-place characteristics during assembly. The top side has minimal tack for ease of handling and rework. BERGQUIST GAP PAD TGP 6000ULM is supplied with protective liners on both sides.

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

TYPICAL PROPERTIES OF CURED MATERIAL
Young's modulus is calculated using 0.01in/min, step rate of strain with a sample size 0.79 in², after 5 minutes of compression at 10% strain on a 1mm thickness material.

Flammability rating UL94 V-0, in-house testing qualified, UL certificate pending.

Physical Properties
- Hardness, Shore 000, ASTM D2240: 60
- Heat Capacity, ASTM E1269, J/g-K: 1.0
- Density, Bulk rubber, ASTM D792, g/cc: 3.2
- Young's Modulus: kPa / psi: 60 / 41.3

Electrical Properties
- Dielectric Strength, ASTM D149, VAC: >5,000
- Dielectric Constant, ASTM D150, 1,000Hz: 6.5
- Volume Resistivity, ASTM D257, ohm-meter: 1×10¹⁰

Thermal Properties
- Thermal Conductivity, ASTM D5470, W/(m-K): 6.0
- Thermal Impedance, 0.040 inch ASTM D5470, ºC-in²/W:
  - 10% Deflection: 0.34
  - 20% Deflection: 0.29
  - 30% Deflection: 0.26

GENERAL INFORMATION
For safe handling information on this product, consult the Safety Data Sheet, (SDS).

Not for product specifications
The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

CONFIGURATIONS AVAILABLE
BERGQUIST GAP PAD TGP 6000ULM is available in the following configurations:

<table>
<thead>
<tr>
<th>Sheet size</th>
<th>8&quot; x 16&quot;</th>
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<tr>
<td>Standard Thicknesses</td>
<td>0.060&quot;, 0.080&quot;, 0.100&quot;, 0.125&quot;</td>
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</table>

Natural tack both sides with fiberglass.
STORAGE
Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 25°C (±3), 50% RH (±10) for a 12 months shelf life. Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.142 = oz·in
mPa·s = cP

Disclaimer
Note:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as of the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
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Reference N/A