



# BERGQUIST GAP PAD TGP 1300

Known as BERGQUIST GAP PAD 1500S30  
November 2018

## PRODUCT DESCRIPTION

Highly Conformable, Thermally Conductive, Reinforced "S-Class" Gap Filling Material.

|                                    |                                                      |
|------------------------------------|------------------------------------------------------|
| <b>Technology</b>                  | Silicone                                             |
| <b>Appearance</b>                  | Light Pink                                           |
| <b>Reinforcement Carrier</b>       | Fiberglass                                           |
| <b>Thickness, ASTM D374</b>        | 0.508 to 6.35mm                                      |
| <b>Inherent Surface Tack</b>       | 2 (1 side)                                           |
| <b>Application</b>                 | Thermal management, TIM (Thermal Interface Material) |
| <b>Operating Temperature Range</b> | -60 to 200°C                                         |

## FEATURES AND BENEFITS

- Thermal Conductivity: 1.3 W/m-K
- Highly Conformable, low hardness
- Decreased strain on fragile components
- Fiberglass reinforced for puncture, shear and tear resistance
- Quick rebound to original shape

BERGQUIST GAP PAD TGP 1300 is a highly compliant Gap Pad material that is ideal for fragile component leads. The material is fiberglass reinforced for improved puncture resistance and handling characteristics.

BERGQUIST GAP PAD TGP 1300 maintains a conformable yet elastic nature that allows for excellent interfacing and wet-out characteristics, even to surfaces with high roughness and/or topography. BERGQUIST GAP PAD TGP 1300 features an inherent tack on both sides of the material, eliminating the need for thermally impeding adhesive layers.

## TYPICAL APPLICATIONS

- Any heat-generating component and a heat sink
- Computer and peripherals
- Telecommunications
- Between any heat-generating semiconductor and a heat sink
- Shielding devices

## TYPICAL PROPERTIES OF CURED MATERIAL

Young's modulus is calculated using 0.01 in/min, step rate of strain with a sample size 0.79 inch<sup>2</sup>.

## Physical Properties

|                                                                        |                       |
|------------------------------------------------------------------------|-----------------------|
| Hardness, Shore 00, Thirty second delay value, ASTM D2240, Bulk rubber | 30                    |
| Heat Capacity, ASTM E1269, J/g-K                                       | 1.0                   |
| Density, Bulk rubber, ASTM D792, g/cc                                  | 1.8                   |
| Flammability, UL 94                                                    | V-0                   |
| Young's Modulus, ASTM D575                                             | kPa 110<br>(psi) (16) |

## Electrical Properties

|                                              |                    |
|----------------------------------------------|--------------------|
| Dielectric Breakdown Voltage, ASTM D149, VAC | >6,000             |
| Dielectric Constant, ASTM D150, 1,000Hz      | 5.0                |
| Volume Resistivity, ASTM D257, ohm-meter     | 1×10 <sup>11</sup> |

## Thermal Properties

|                                           |     |
|-------------------------------------------|-----|
| Thermal Conductivity, ASTM D5470, W/(m-K) | 1.3 |
|-------------------------------------------|-----|

## Thermal Impedance vs. Strain

|                                                                   |      |
|-------------------------------------------------------------------|------|
| Thermal Impedance, °C-in <sup>2</sup> /W, 0.040" <sup>(1)</sup> : |      |
| 10% Deflection                                                    | 1.69 |
| 20% Deflection                                                    | 1.41 |
| 30% Deflection                                                    | 1.26 |

(1) The ASTM D5470 test fixture was utilized. The recorded values include the interfacial thermal resistance. The values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied

## 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 1300 is available in the following configurations:

- Sheet form and die-cut parts



**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**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{psi} \times 145 = \text{N/mm}^2$   
 $\text{MPa} = \text{N/mm}^2$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

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**Reference 1**

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