



# BERGQUIST GAP PAD TGP HC1000

Known as BERGQUIST GAP PAD HC1000  
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## PRODUCT DESCRIPTION

"Gel-Like" Modulus Gap Filling Material.

<b>Technology</b>	Silicone
<b>Appearance</b>	Gray
<b>Reinforcement Carrier</b>	Fiberglass
<b>Thickness</b>	0.254 to 0.508mm , ASTM D374
<b>Inherent Surface Tack</b>	2 (1 sided)
<b>Application</b>	Thermal management, TIM (Thermal Interface Material)
<b>Operating Temperature Range</b>	-60 to 200°C

## FEATURES AND BENEFITS

- Thermal Conductivity: 1.0 W/m-K
- Highly Conformable, low hardness
- "Gel-like" modulus
- Fiberglass reinforced for puncture, shear and tear resistance

BERGQUIST GAP PAD TGP HC1000 is an extremely conformable, low-modulus polymer that acts as a thermal interface and electrical insulator between electronic components and heat sinks. The "gel-like" modulus allows this material to fill air gaps to enhance the thermal performance of electronic systems.

BERGQUIST GAP PAD TGP HC1000 is offered with removable protective liners on both sides of the material.

## TYPICAL APPLICATIONS

- Computer and peripherals
- Telecommunications
- Heat interfaces to frames, chassis or other heat spreading devices
- RDRAM™ memory modules / chip scale packages
- CDROM / DVD cooling
- Areas where irregular surfaces need to make a thermal interface to a heat sink
- DDR SDRAM memory modules
- FBDIMM modules

## 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	25
, Thirty second delay value	
, ASTM D2240, Bulk rubber	
Heat Capacity, ASTM E1269, J/g-K	1.0
Density, Bulk rubber, ASTM D792, g/cc	1.6
Flammability, UL 94	V-0
Young's Modulus, ASTM D575	kPa 275 (psi) (40)

### Electrical Properties

Dielectric Breakdown Voltage, ASTM D149, VAC	>5,000
Dielectric Constant, ASTM D150, 1,000Hz	5.5
Volume Resistivity, ASTM D257, ohm-meter	1×10 <sup>11</sup>

### Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m-K)	1.0
Thermal Impedance, 0.020 inch ASTM D5470, °C-in <sup>2</sup> /W:	
10% Deflection	1.3
20% Deflection	1.0
30% Deflection	0.96

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.

## 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 HC1000 is available in the following configurations:

- Sheet form
- Die-Cut parts
- Roll form

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**

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

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Reference 1

# Mouser Electronics

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