



# GAP PAD TGP 18000 SF

April 2024

## PRODUCT DESCRIPTION

A 18 W/m-K, silicone free Gap Pad with exceptional thermal performance.

<b>Technology</b>	Silicone Free
<b>Appearance</b>	Blue-gray
<b>Application</b>	Thermal management, TIM (Thermal Interface Material)
<b>Operating Temperature Range</b>	-40 to 150°C

## FEATURES AND BENEFITS

- Thermal Conductivity: 18 W/m-K
- No silicone outgassing
- No silicone extraction
- No mobile polymer bleed
- Electrically insulating

BERGQUIST GAP PAD TGP 18000SF is a gap filling material rated at a thermal conductivity of 18 W/m-K. It is specially formulated for high performance applications requiring silicone free solutions. The material offers exceptional thermal performance at typical pressures due to the unique filler package. Available with one side PSA for enhanced handling and fixturing.

## TYPICAL APPLICATIONS

- Telecommunications (routers, switches, base stations)
- Optical transceivers
- ASICs and DSPs<sup>(1)</sup>
- Storage
- Automotive modules
- Power converters, motor controls
- Aerospace modules
- LEDs and Lasers

## TYPICAL PROPERTIES

### Physical Properties

Hardness, Shore 00, ASTM D2240	85
Density, ASTM D792, g/cc	1.7
Shelf life, days	365
Peak Stress @ 10% Strain*, ASTM D575, psi	86

**Note:** One side surface tack optional, material not naturally tacky

\* Measured on 40mils thick pads

<sup>(1)</sup> ASICs (Application Specific Integrated Circuits)  
DSPs (Digital Signal Processors)

## Electrical Properties

Volume Resistivity, ASTM D257, Ohm-meter	1.05×10 <sup>10</sup>
Dielectric Constant, ASTM D150, 1,000Hz	4.4
Dielectric Strength, VAC V/mil	170

## Thermal Properties

Thermal Conductivity, ASTMD5470, W/m-K	18
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**Note:** Optimal thermal performance at 10% strain.

## 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 18000SF is available in the following configurations, custom part sizes available upon request:

Sheet size	152 x 152mm **
Standard Thickness	0.5, 1.0, 1.5, 2.0, 2.5, 3.2 mm

\*\* 101 x 152mm size for 0.5mm thickness

Sheet size	6" x 6" **
Standard Thickness	20, 40, 60, 80, 100, 125 mils 0.5, 1.0, 1.5, 2.0, 2.54, 3.18 mm

\*\* 4"x6" size for 20mils thickness

## 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 365 days 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**

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

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