Technical Data Sheet

BERGQUIST GAP PAD TGP 6000ULM

October 2019

PRODUCT DESCRIPTION

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

Technology	Silicone
Appearance	Gray
Reinforcement Carrier	Fiberglass
Interface Tack	2 sides
Thickness	1.016 to 3.175mm
Application	Thermal management, TIM (Thermal Interface Material)
Operating Temperature Range	-60 to 200ºC
UL Flammability Rating	UL 94 V-0

FEATURES AND BENEFITS

- Thermal Conductivity: 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.

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)	41.3 (6)
Flammability Rating @ 0.76 mm, 3.0 mm, 4.7 mm thicknesses, IEC 60695-11-10, UL 94		V-0
Electrical Properties		
Dielectric Strength, ASTM D149, VAC		>5,000
Dielectric Constant, ASTM D150, 1,000Hz		6.5
Volume Resistivity, ASTM D257, ohm-meter		1×10^{10}
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:

Sheet size	8" x 16"
Standard Thicknesses	0.040", 0.060", 0.080", 0.100", 0.125"

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: 25ºC (±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/F
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 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

Note:
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Reference N/A