Technical Data Sheet

BERGQUIST GAP PAD TGP 2400

Known as BERGQUIST GAP PAD 2500S20
November 2018

PRODUCT DESCRIPTION

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

Technology	Silicone
Appearance	Light yellow
Reinforcement Carrier	Fiberglass
Thickness, ASTM D374	0.254 to 6.35 mm
Inherent Surface Tack	2 (1 side)
Application	Thermal management, TIM (Thermal Interface Material)
Operating Temperature Range	-60 to 200ºC

FEATURES AND BENEFITS

- Thermal Conductivity: 2.4 W/m-K
- Low "S-Class" thermal resistance at ultra-low pressures
- Ultra conformable, "gel-like" modulus
- Designed for low-stress applications
- Fiberglass reinforced for puncture, shear and tear resistance

BERGQUIST GAP PAD TGP 2400 is a thermally conductive, reinforced material rated at a thermal conductivity of 2.4 W/m-K . The material is a filled-polymer material yielding extremely soft, elastic characteristics. The material is reinforced to provide easy handling, converting, added electrical isolation and tear resistance.

BERGQUIST GAP PAD TGP 2400 is well suited for low pressure applications that typically use fixed standoff or clip mounting. BERGQUIST GAP PAD TGP 2400 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 2400 is offered with inherent natural tack on both sides of the material allowing for stick-in-place characteristics during application assembly. It is also available with a non-tack side.

Please see the "Standard Options" section for description. BERGQUIST GAP PAD TGP 2400 is supplied with protective liners on both sides. The top side has reduced tack for ease of handling.

TYPICAL APPLICATIONS

- Between processors and heat sinks
- Between graphics chips and heat sinks
- DVD and CDROM electronics cooling
- Area where heat needs to be transferred to a frame, chassis or other type of heat spreader

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 inch² .

Physical Properties		
Hardness, Shore 00, Thirty second delay value, ASTM D2240, Bulk rubber		20
Heat Capacity, ASTM E1269, J/g-K		1.0
Density, Bulk rubber, ASTM D792, g/cc		3.1
Flammability, UL 94		V-0
Young's Modulus, ASTM D575	kPa (psi)	35 (5)
Electrical Properties		
Dielectric Breakdown Voltage , ASTM D149, VAC		>3,000
Dielectric Constant, ASTM D150, 1,000Hz		6.6
Volume Resistivity, ASTM D257, ohm-meter		1×10^{11}
Thermal Properties		
Thermal Conductivity, ASTM D5470, W/(m-K)		2.4
Thermal Impedance vs. Strain		
Thermal Impedance, ºC-in²/W, 0.040" (1):		
10% Deflection		0.75
20% Deflection		0.68
30% Deflection		0.61

(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 2400 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: 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
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:
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 at 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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