Technical Data Sheet

BERGQUIST SIL PAD TSP A2000

Known as BERGQUIST SIL-PAD A1500
November 2018

PRODUCT DESCRIPTION

Electrically Insulating, Thermally Conductive Elastomeric Material.

Technology	Silicone
Appearance	Green
Reinforcement Carrier	Fiberglass
Total Thickness , ASTM D374	0.254mm
Application	Thermal management, Thermally conductive adhesive
Operating Temperature Range	-60 to 180ºC

FEATURES AND BENEFITS

- Thermal impedance: 0.42ºC-in²/W @ 50 psi
- Elastomeric compound coated on both sides

TYPICAL APPLICATIONS

- Power supplies
- Automotive electronics
- Motor controls
- Power semiconductors

BERGQUIST SIL PAD TSP A2000 is a silicone-based, thermally conductive and electrically insulating material. It consists of a cured silicone elastomeric compound coated on both sides of a fiberglass reinforcement layer.

BERGQUIST SIL PAD TSP A2000 performs well under clamping pressure up to 200 psi and is an excellent choice for high performance applications requiring electrical isolation and cut-through resistance.

TYPICAL PROPERTIES

Physical Properties

Hardness, Shore A, ASTM D2240	80
Breaking Strength, ASTM D1458, KN/m	12
Elongation , 45º to warp and fill, ASTM D412,%	40
Flammability Rating, UL 94	V-0

Electrical Properties

Dielectric Breakdown Voltage , ASTM D149, Vac	6,000
Dielectric Constant, ASTM D150 @ 1,000 Hz	7.0
Volume Resistivity, ASTM D257, ohm-meter	1×10^{11}

Thermal Properties

Thermal Conductivity , ASTM D5470, W/(m-K)	2.0

Thermal Performance vs. Pressure

TO-220 Thermal Performance, ºC/W	
@ 10 psi	3.03
@ 25 psi	2.62
@ 50 psi	2.21
@ 100 psi	1.92
@ 200 psi	1.78
Thermal Impedance, ASTM D5470, ºC-in²/W (1)	
@ 10 psi	0.59
@ 25 psi	0.5
@ 50 psi	0.42
@ 100 psi	0.34
@ 200 psi	0.31

I) The ASTM D5470 test fixture was used. 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 SIL PAD TSP A2000 are supplied in:

- Sheet form, roll form and die-cut parts
- With or without pressure-sensitive adhesive

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

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