Technical Data Sheet

BERGQUIST SIL PAD TSP PP900

Known as BERGQUIST POLY-PAD 400
September 2019

PRODUCT DESCRIPTION

Polyester-Based, Thermally Conductive Insulation Material.

Technology	Polyester-based
Appearance	Tan
Reinforcement Carrier	Fiberglass
Total Thickness , ASTM D374	0.229mm
Application	Thermal management, Thermally conductive adhesive
Operating Temperature Range	-20 to 150ºC

FEATURES AND BENEFITS

- Thermal impedance: 1.13ºC-in²/W @ 50 psi
- Polyester based
- For applications requiring conformal coatings
- Designed for silicone-sensitive standard applications

TYPICAL APPLICATIONS

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

BERGQUIST SIL PAD TSP PP900 is a fiberglass-reinforced insulator coated with a filled polyester resin. BERGQUIST SIL PAD TSP PP900 is economical and designed for most standard applications.

Polyester-based, thermally conductive insulators from BERGQUIST provide a complete family of materials for silicone-sensitive applications. Poly-Pads are ideally suited for applications requiring conformal coatings or applications where silicone contamination is a concern (telecomm and certain aerospace applications).

Poly-Pads are constructed with ceramic-filled polyester resins coating either side of a fiberglass carrier or a film carrier. The Poly-Pad family offers a complete range of performance characteristics to match individual applications.

TYPICAL PROPERTIES

Physical Properties

Hardness, Shore A, ASTM D2240	90
Breaking Strength, ASTM D1458, KN/m	18
Elongation , 45º to warp and fill, ASTM D412,%	10
Tensile Strength, ASTM D412, MPa	48
Flammability Rating, UL 94	V-0

Electrical Properties

Dielectric Breakdown Voltage , ASTM D149, Vac	2,500
Dielectric Constant, ASTM D150 @ 1,000 Hz	5.5
Volume Resistivity, ASTM D257, ohm-meter	1×10^{11}

Thermal Properties

Thermal Conductivity , ASTM D5470, W/(m-K)	0.9

Thermal Performance vs. Pressure

TO-220 Thermal Performance, ºC/W	
@ 10 psi	5.85
@ 25 psi	5.61
@ 50 psi	5.13
@ 100 psi	4.59
@ 200 psi	4.12
Thermal Impedance, ASTM D5470, ºC-in²/W (1)	
@ 10 psi	1.62
@ 25 psi	1.35
@ 50 psi	1.13
@ 100 psi	0.86
@ 200 psi	0.61

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 PP900 are supplied in:

- Sheet form, roll form and die-cut parts
- With or without pressure-sensitive adhesive
- We produce thousands of specials. Tooling charges vary depending on tolerances and complexity of the part.

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

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