



BERGQUIST SIL PAD TSP 1416

Known as BERGQUIST SIL-PAD 9516
November 2018

PRODUCT DESCRIPTION

A highly thermally conductive, electrically insulating silicone elastomeric material.

Technology	Silicone
Appearance	Pink
Reinforcement Carrier	Fiberglass
Total Thickness , ASTM D374	0.406mm
Application	Thermal management, Thermally conductive adhesive
Operating Temperature Range	-60 to 180°C

@ 100 psi	3.8
@ 200 psi	3.45

Thermal Impedance, ASTM D5470, °C-in²/W ⁽¹⁾

@ 10 psi	1.53
@ 25 psi	1.23
@ 50 psi	1.03
@ 100 psi	0.87
@ 200 psi	0.75

1) The ASTM D5470 (Bergquist modified) 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.

FEATURES AND BENEFITS

- A highly thermally conductive, electrically insulating silicone elastomeric material
- Excellent cut-through resistance
- Added thickness helps to encapsulate small metal slivers and burrs
- Fiberglass reinforced
- Non-stick surface allows for separation if rework is required
- U.L. rating of V-1
- RoHS compliant
- High Thermal Conductivity: 1.6 W/m-K

TYPICAL APPLICATIONS

- Casting or other designs where burrs and debris have a history of causing dielectric failures

TYPICAL PROPERTIES

Physical Properties

Flammability Rating, UL 94	V-1
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Electrical Properties

Dielectric Breakdown Voltage , ASTM D149, Vac	6,000
Dielectric Constant, ASTM D150 @ 1,000 Hz	6.0
Volume Resistivity, ASTM D257, ohm-meter	1×10 ¹⁰

Thermal Properties

Thermal Conductivity , ASTM D5470, W/(m-K)	1.6
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Thermal Performance vs. Pressure

TO-220 Thermal Performance, °C/W	
@ 10 psi	4.6
@ 25 psi	4.37
@ 50 psi	4.07

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 1416 is supplied in:

- Sheet form
- Roll form
- Die-Cut parts
- Custom parts (tooling charge may apply and vary depending upon tolerance and complexity of the part)
- 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

Note:

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Reference 1