Technical Data Sheet

BERGQUIST SIL PAD TSP 1100ST

Known as BERGQUIST SIL-PAD 1100ST
October 2018

PRODUCT DESCRIPTION

Affordable, Electrically Insulating, Thermally Conductive, Soft Tack Elastomeric Material.

Technology	Silicone
Appearance	Yellow
Reinforcement Carrier	Fiberglass
Total Thickness	0.305mm
Inherent Surface Tack	2 (2 sides)
Application	Thermal management, Thermally conductive adhesive
Operating Temperature Range	-60 to 180ºC

FEATURES AND BENEFITS

- Inherent tack on both sides for exceptional thermal performance and easy placement
- Re-positionable for higher utilization, ease of use and assembly error reduction
- Lined on both sides for ease of handling prior to placement in high volume assemblies
- Exhibits exceptional thermal performance even at a low mounting pressure
- Fiberglass reinforced
- Value alternative to BERGQUIST SIL PAD TSP 1800ST

TYPICAL APPLICATIONS

- Automotive ECMs
- Motor controls
- Power supplies
- Between an electronic power device and its heat sink

BERGQUIST SIL PAD TSP 1100ST is a fiberglass-reinforced thermal interface material featuring inherent tack on both sides. The material exhibits excellent thermal performance at low mounting pressures.

BERGQUIST SIL PAD TSP 1100ST is supplied on two liners for exceptionally easy handling prior to auto-placement in high-volume assemblies. It is ideal for placement between an electronic power device and its heat sink.

TYPICAL PROPERTIES

Physical Properties

Hardness, Shore 00, 30 second delay, ASTM D2240	85
Hardness, Shore 00, ASTM D2240 (1)	85
Breaking Strength, ASTM D1458, KN/m	0.5
Elongation , 45º to warp and fill, ASTM D412,%	16
Tensile Strength, ASTM D412, MPa	1.5
Flammability Rating, UL 94	V-0

Electrical Properties

Dielectric Breakdown Voltage , ASTM D149, Vac	5,000
Dielectric Constant, ASTM D150 @ 1,000 Hz	5.0
Volume Resistivity, ASTM D257, ohm-meter	1×10^{10}

Thermal Properties

Thermal Conductivity , ASTM D5470, W/(m-K)	1.1

Thermal Performance vs. Pressure

TO-220 Thermal Performance, ºC/W	
@ 10 psi	2.72
@ 25 psi	2.71
@ 50 psi	2.68
@ 100 psi	2.62
@ 200 psi	2.23
Thermal Impedance, ASTM D5470, ºC-in²/W (1)	
@ 10 psi	0.75
@ 25 psi	0.71
@ 50 psi	0.66
@ 100 psi	0.61
@ 200 psi	0.57

(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 SIL PAD TSP 1100ST is supplied in:

- Sheet form, roll form and die-cut parts
- Top and bottom liners

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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