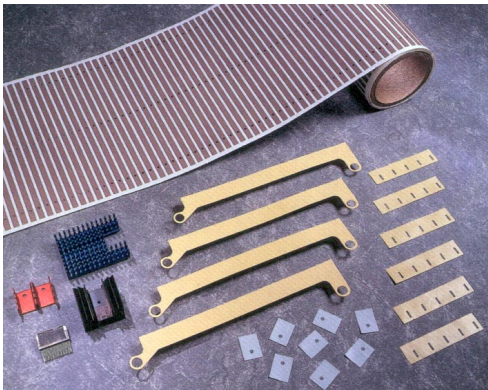


Polyester Based Thermally Conductive Insulation Material

Features and Benefits

- Thermal impedance
1.13°C-in²/W (@50 psi)
- Polyester based
- For applications requiring conformal coatings
- For silicone-sensitive applications
- Designed for standard applications



Poly-Pad 400 is a fiberglass-based insulator coated with a filled polyester resin. Poly-Pad 400 is economical and designed for most standard applications.

Polyester based, thermally conductive insulators from Bergquist provide a complete family of material for silicone-sensitive applications. Poly-Pads are ideally suited for applications requiring conformal coatings or applications where silicone contamination is a concern (telecomm & 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

Typical Properties of Poly-Pad 400						
Property	Imperial Value	Metric Value	Test Method			
Color	Tan	Tan	Visual			
Reinforcement Carrier	Fiberglass	Fiberglass	***			
Thickness, (inch) / (mm)	0.009	0.229	ASTM D374			
Hardness, (Shore A)	90	90	ASTM D2240			
Breaking Strength, (lbs./inch) / (kN/m)	100	18	ASTM D1458			
Elongation, (%45° to Warp & Fill)	10	10	ASTM D412			
Tensile Strength, (psi) / (Mpa)	7000	48	ASTM D412			
Continuous Use Temp., (°F) / (°C)	-4 to 302	-20 to 150	***			
Electrical	Imperial Value	Metric Value	Test Method			
Dielectric Breakdown Voltage, (VAC)	4500	4500	ASTM D149			
Dielectric Constant, (1000 Hz)	5.5	5.5	ASTM D150			
Volume Resistivity, (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257			
Flame Rating	94 V-O	94 V-O	U.L.			
Thermal	Imperial Value	Metric Value	Test Method			
Thermal Conductivity, (W/m-K)	0.9	0.9	ASTM D5470			
Thermal Impedance vs. Pressure						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance, (°C/W)		5.85	5.61	5.13	4.59	4.12
Thermal Impedance, (°C-in ² /W) (I)		1.62	1.35	1.13	0.86	0.61

I). The ASTM D5470 (Bergquist Modified) test fixture was used. The recorded value includes interfacial thermal resistance. These values are given to the customer for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

Typical Applications Include

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

Configurations

Available:

- Sheet form
- Die-Cut parts
- Roll form
- With or without pressure sensitive adhesive

We produce thousands of specials. Tooling charges vary depending on tolerances and complexity of the part.

Sil-Pad[®]: U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others

Product Data Sheet / PDS-0602-001-01; Rev 01