

## Poly-Pad® 1000

January 2015

#### **PRODUCT DESCRIPTION**

Polyester-Based, Thermally Conductive Insulation Material

#### FEATURES AND BENEFITS

- Thermal impedance: 0.82°C-in²/W (@50 psi)
- Polyester based
- For applications requiring non-silicone conformal coatings
- Designed for silicone-sensitive applications equiring high performance



Poly-Pad<sup>®</sup> 1000 is a fiberglass-reinforced insulator coated with a filled polyester resin. The material offers superior thermal resistance for high performance 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.

Note: To build a part number, visit our website at www.bergquistcompany.com.

# TYPICAL PROPERTIES OF POLY-PAD 1000 PROPERTY IMPERIAL VALUE METRIC VALUE TEST METHOD Color Yellow Yellow Visual

Color	Yellow		Yellow		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 (%)	10		10		ASTM D412	
Tensile Strength (psi) / (MPa)	7000		48		ASTM D412	
Continuous Use Temp (°F) / (°C)	-4 to 302		-20 to 150			
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	2500		2500		ASTM D149	
Dielectric Constant (1000 Hz)	4.5		4.5		ASTM D150	
Volume Resistivity (Ohm-meter)	1011		10"		ASTM D257	
THERMAL						
Thermal Conductivity (W/m-K)	1.2		1.2		ASTM D5470	
THERMAL PERFORMANCE vs PRESSURE						
Pressure (psi)		10	25	50	100	200
TO-220 Thermal Performance (°C/W)		4.70	4.25	3.74	3.27	2.89
Thermal Impedance (°C-in²/W) (1)		1.30	1.02	0.82	0.61	0.43
I) The ASTM D5470 test fixture was used. The reco	orded value inc	ludes interfac	ial thermal resi	stance. These	values are pro	ovided for

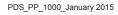
 The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

#### TYPICAL APPLICATIONS INCLUDE

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

#### **CONFIGURATIONS AVAILABLE**

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





### Disclaimer

#### Note:

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Reference 0.1