

Poly-Pad® 400

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
- Designed for silicone-sensitive standard applications



Poly-Pad 400 is a fiberglass-reinforced 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 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 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 and 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						
Dielectric Breakdown Voltage (Vac)	2500	2500	ASTM D149			
Dielectric Constant (1000 Hz)	5.5	5.5	ASTM D150			
Volume Resistivity (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257			
THERMAL						
Thermal Conductivity (W/m-K)	0.9	0.9	ASTM D5470			
Flame Rating	V-O	V-O	U.L. 94			
THERMAL PERFORMANCE 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) (1)		1.62	1.35	1.13	0.86	0.61

1) 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.

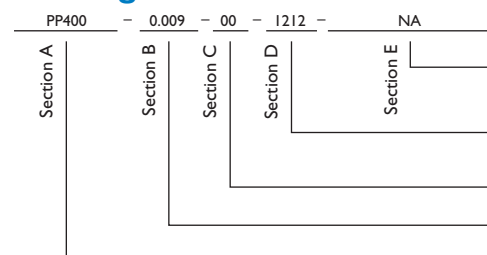
Typical Applications Include:

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

Configurations Available:

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

Building a Part Number



Standard Options

- ◀ example
- NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.
- ___ = Standard configuration dash number,
1212 = 12" x 12" sheets, 12/250 = 12" x 250" rolls, or
00 = custom configuration
- AC = Adhesive, one side
00 = No adhesive
- Standard thicknesses available: 0.009"
- PP400 = Poly-Pad 400 Material

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

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



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