

High Cut-Through Resistant, Electrically Insulating, Thermally Conductive Material

Features and Benefits

- Thermal impedance: 1.07°C-in²/W (@50 psi)
- Excellent cut-through resistance
- Use in screw-mounted applications with cut-through problems



In addition to excellent heat transfer and dielectric properties, Sil-Pad 980 is specially formulated for high resistance to crushing and cut-through typically found in high-pressure applications where surface imperfections such as burrs and dents are inherently common (e.g. heavily-machined metal surfaces manufactured from extrusions or castings).

With a field-proven history of reliability, Sil-Pad 980 is Bergquist's best material for cut-through resistance in screw-mounted and other applications with cut-through problems.

TYPICAL PROPERTIES OF SIL-PAD 980

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD			
Color	Mauve	Mauve	Visual			
Reinforcement Carrier	Fiberglass	Fiberglass	—			
Thickness (inch) / (mm)	0.009	0.229	ASTM D 374			
Hardness (Shore A)	95	95	ASTM D 2240			
Breaking Strength (lbs/inch) / (kN/m)	140	26	ASTM D 1458			
Elongation (%45° to Warp and Fill)	10	10	ASTM D 412			
Cut-Through (lbs) / (kg)	750	340	ASTM D 412			
Continuous Use Temp (°F) / (°C)	-40 to 302	-40 to 150	—			
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	4000	4000	ASTM D 149			
Dielectric Constant (1000 Hz)	6.0	6.0	ASTM D 150			
Volume Resistivity (Ohm-meter)	10 ¹⁰	10 ¹⁰	ASTM D 257			
THERMAL						
Thermal Conductivity (W/m-K)	1.2	1.2	ASTM D 5470			
THERMAL PERFORMANCE vs PRESSURE						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)		5.48	5.07	4.52	4.04	3.56
Thermal Impedance (°C-in ² /W) (1)		1.51	1.22	1.07	0.89	0.53

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.

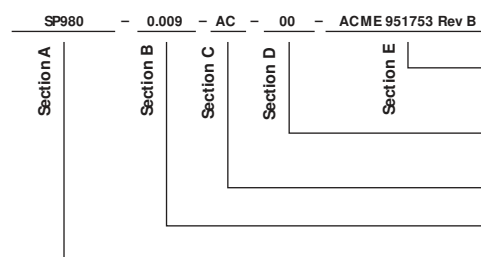
Typical Applications Include:

- Silicone-sensitive assemblies
- Telecommunications
- Automotive electronics

Configurations Available:

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

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.

1212 = 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"

SP980 = Sil-Pad 980 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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