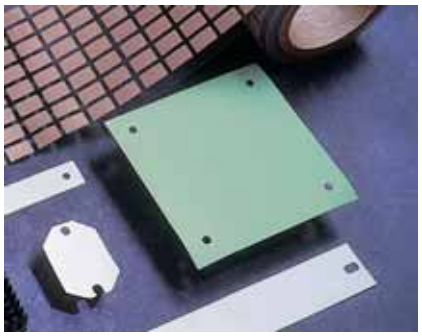
Sil-Pad® 1750

For High Humidity, High Dielectric (U.L. 94 1950, IEC 950) Requirements

Features and Benefits

- Thermal impedance: 0.53°C-in²/W (@50 psi)
- Excellent dielectric strength retention after humidity exposure
- Elastomeric pad



The combination of high thermal conductivity and excellent dielectric strength retention after humidity exposure is formulated into the Sil-Pad 1750 elastomeric pad.

Sil-Pad 1750 relies on processes that minimize the effect of high humidity on the electrical properties of finished material. Therefore, exposure to humid environments during assembly, or over long-term operating conditions, will not severely affect the ability of the material to perform.

TYPICAL PROPERTIES OF SIL-PAD 1750

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Green	Green	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	—
Thickness (inch) / (mm)	0.012	0.305	ASTM D374
Hardness (Shore A)	85	85	ASTM D2240
Breaking Strength (lbs/inch) / (kN/m)	65	12	ASTM D1458
Elongation (%45° to Warp and Fill)	23	23	ASTM D412
Tensile Strength (psi) / (MPa)	1500	10	ASTM D412
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—
ELECTRICAL			
Dielectric Breakdown Voltage (Vac)	6000	6000	ASTM D149
Dielectric Constant (1000 Hz)	4.0	4.0	ASTM D150
Volume Resistivity (Ohm-meter)	10^{12}	10^{12}	ASTM D257
Flame Rating	V-O	V-O	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K)	2.2	2.2	ASTM D5470

THERMAL PERFORMANCE vs PRESSURE					
Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)	3.11	2.87	2.42	2.08	1.90
Thermal Impedance (°C-in²/W) (1)	0.86	0.68	0.53	0.39	0.28

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:

- High-voltage power supplies
- Motor controls
- High "hi-pot" requirements

Configurations Available:

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

Building a Part Number

SP1750 – 0.012 – AC – 1212 – NA

- Section A: SP1750 = Sil-Pad 1750 Material
- Section B: Standard thicknesses available: 0.012"
- Section C: AC = Adhesive, one side; 00 = No adhesive
- Section D: ____ = Standard configuration dash number, 1212 = 12" x 12" sheets, or 00 = custom configuration
- Section E: NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

Standard Options

example

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

THE BERGQUIST COMPANY

www.bergquistcompany.com

The Bergquist Company - North American Headquarters
18930 West 78th Street
Chanhassen, MN 55317
Phone: 800-347-4572
Fax: 952-835-0430

The Bergquist Company - Europe
Bramenberg 9a, 3755 BT Eemnes
Netherlands
Phone: 31-35-5380684
Fax: 31-35-5380295

The Bergquist Company - China
Rm. 7C, Aihe Mansion
No. 629 Ling Ling Road
Shanghai, China 200030
Ph: 86-21-6464-2206
Fax: 86-21-6464-2209