

Features and Benefits

- Thermal impedance:
0.33°C-in²/W (@50 psi)
- Optimal heat transfer
- High thermal conductivity: 3.5 W/m-K



Sil-Pad 2000 is a high performance, thermally conductive insulator designed for demanding military/aerospace and commercial applications. In these applications, Sil-Pad 2000 complies with military standards.

Sil-Pad 2000 is a silicone elastomer formulated to maximize the thermal and dielectric performance of the filler/binder matrix. The result is a grease-free, conformable material capable of meeting or exceeding the thermal and electrical requirements of high-reliability electronic packaging applications.

Outgassing Data for Spacecraft Materials

Post Cure Conditions	%TML (1.0% Max. Acceptable)	%CVCM (0.1% Max. Acceptable)
24 hrs. @ 175°C No Post Cure	0.07 0.26	0.03 0.10

TYPICAL PROPERTIES OF SIL-PAD 2000

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD			
Color	White	White	Visual			
Reinforcement Carrier	Fiberglass	Fiberglass	—			
Thickness (inch) / (mm)	0.010 to 0.015	0.254 to 0.381	ASTM D374			
Hardness (Shore A)	90	90	ASTM D2240			
Continuous Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—			
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	4000	4000	ASTM D149			
Dielectric Constant (1000 Hz)	4.0	4.0	ASTM D150			
Volume Resistivity (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257			
Flame Rating	V-O	V-O	UL94			
THERMAL						
Thermal Conductivity (W/m-K)	3.5	3.5	ASTM D5470			
THERMAL PERFORMANCE vs PRESSURE						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)		2.61	2.32	2.02	1.65	1.37
Thermal Impedance (°C-in²/W) (I)		0.57	0.43	0.33	0.25	0.20
I) 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.						

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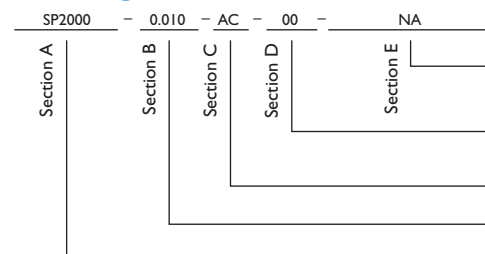
Typical Applications Include:

- Power supplies
- Power semiconductors
- CAGE Number 55285
- Aerospace
- Motor controls
- U.L. File Number E59150
- Military Electronics
- Avionics

Configurations Available:

- Sheet form, die-cut parts
- 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.

— = Standard configuration dash number,
1212 = 12" x 12" sheets, or 00 = custom configuration

AC = Adhesive, one side
00 = No adhesive

Standard thicknesses available: 0.010", 0.015"

SP2000 = Sil-Pad 2000 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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