

Features and Benefits

- Thermal impedance: 1.13°C-in²/W (@50 psi)
- Original Sil-Pad material
- Excellent mechanical and physical characteristics
- Flame retardant



Sil-Pad 400 is a composite of silicone rubber and fiberglass. The material is flame retardant and is specially formulated for use as a thermally conductive insulator. The primary use for Sil-Pad 400 is to electrically isolate power sources from heat sinks.

Sil-Pad 400 has excellent mechanical and physical characteristics. Surfaces are pliable and allow complete surface contact with excellent heat dissipation. Sil-Pad 400 actually improves its thermal resistance with age. The reinforcing fiberglass provides excellent cut-through resistance. In addition, Sil-Pad 400 is non-toxic and resists damage from cleaning agents.

TYPICAL PROPERTIES OF SIL-PAD 400						
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD			
Color	Gray	Gray	Visual			
Reinforcement Carrier	Fiberglass	Fiberglass	—			
Thickness (inch) / (mm)	0.007, 0.009	0.178, 0.229	ASTM D 374			
Hardness (Shore A)	85	85	ASTM D 2240			
Breaking Strength (lbs/inch) / (kN/m)	30	5	ASTM D 1458			
Elongation (%45° to Warp and Fill)	54	54	ASTM D 412			
Tensile Strength (psi) / (MPa)	3000	20	ASTM D 412			
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—			
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	3500, 4500	3500, 4500	ASTM D 149			
Dielectric Constant (1000 Hz)	5.5	5.5	ASTM D 150			
Volume Resistivity (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D 257			
Flame Rating	V-O	V-O	U.L. 94			
THERMAL						
Thermal Conductivity (W/m-K)	0.9	0.9	ASTM D 5470			
THERMAL PERFORMANCE vs PRESSURE						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W) 0.007"		6.62	5.93	5.14	4.38	3.61
TO-220 Thermal Performance (°C/W) 0.009"		8.51	7.62	6.61	5.63	4.64
Thermal Impedance (°C-in ² /W) 0.007" (1)		1.82	1.42	1.13	0.82	0.54
Thermal Impedance (°C-in ² /W) 0.009" (1)		2.34	1.83	1.45	1.05	0.69

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
- U.L. File Number E59150
- CAGE Number 55285

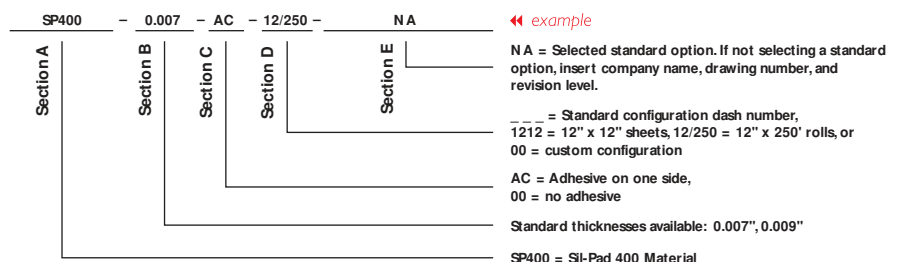
Configurations Available:

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

Building a Part Number

Standard Options

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



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



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, Aih Mansion
No. 629 Ling Ling Road
Shanghai, China 200030
Ph: 86-21-6464-2206
Fax: 86-21-6464-2209

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