

### 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 D374		
Hardness (Shore A)	85	85	ASTM D2240		
Breaking Strength (lbs/inch) / (kN/m)	30	5	ASTM D1458		
Elongation (%45° to Warp and Fill)	54	54	ASTM D412		
Tensile Strength (psi) / (MPa)	3000	20	ASTM D412		
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—		
ELECTRICAL					
Dielectric Breakdown Voltage (Vac)	3500, 4500	3500, 4500	ASTM D149		
Dielectric Constant (1000 Hz)	5.5	5.5	ASTM D150		
Volume Resistivity (Ohm-meter)	10 <sup>11</sup>	10 <sup>11</sup>	ASTM D257		
Flame Rating	V-O	V-O	U.L. 94		
THERMAL					
Thermal Conductivity (W/m-K)	0.9	0.9	ASTM D5470		
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-in²/W) 0.007" (1)	1.82	1.42	1.13	0.82	0.54
Thermal Impedance (°C-in²/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.					

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.

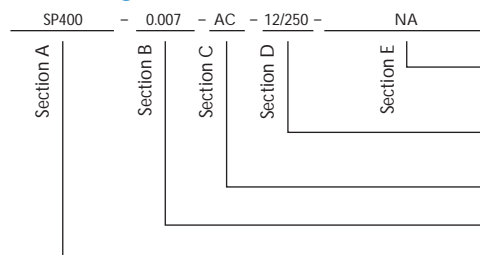
### Typical Applications Include:

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

### 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.

— = Standard configuration dash number,  
1212 = 12" x 12" sheets, 12/250 = 12" x 250' rolls, or  
00 = custom configuration

AC = Adhesive, one side; AC2 = Adhesive, two sides; or  
00 = no adhesive

Standard thicknesses available: 0.007", 0.009"

SP400 = Sil-Pad 400 Material

Note: To build a part number, visit our website at [www.bergquistcompany.com](http://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



[www.bergquistcompany.com](http://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 -  
European Headquarters  
Bramenberg 9a, 3755 BT Eemnes  
Netherlands  
Phone: 31-35-5380684  
Fax: 31-35-5380295

The Bergquist Company - Asia  
Room 15, 8/F Wah Wai Industrial Centre  
No. 38-40, Au Pui Wan Street  
Fotan, Shatin, N.T. Hong Kong  
Ph: 852.2690.9296  
Fax: 852.2690.2344

All statements, technical information and recommendations herein are based on tests we believe to be reliable, and THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MARKETABILITY AND FITNESS FOR PURPOSE. Sellers and manufacturers' only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability whatsoever in connection therewith. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL OR CONSEQUENTIAL, INCLUDING LOSS OF PROFITS OR REVENUE ARISING OUT OF THE USE OR THE INABILITY TO USE A PRODUCT. No statement, purchase order or recommendations by seller or purchaser not contained herein shall have any force or effect unless in an agreement signed by the officers of the seller and manufacturer.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Bergquist Company:](#)

[SP400-0.009-00-11](#)