Sil-Pad[®] 400

The Original Sil-Pad Material

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 P	ROPERT	IES OF	SIL-PA	AD 400			
PROPERTY	IMPERIAL VALUE		METRIC VALUE		TEST METHOD		
Color	Gr	Gray		Gray		Visual	
Reinforcement Carrier	Fiber	Fiberglass		Fiberglass		_	
Thickness (inch) / (mm)	0.007, 0.009		0.178, 0.229		ASTM D374		
Hardness (Shore A)	85		85		ASTM D2240		
Breaking Strength (Ibs/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,	3500, 4500		3500, 4500		ASTM D149	
Dielectric Constant (1000 Hz)	5	5.5		5.5		ASTM D150	
Volume Resistivity (Ohm-meter)	1011		1011		ASTM D257		
Flame Rating	V-O		V-O		U.L. 94		
THERMAL							
Thermal Conductivity (W/m-K)	0	0.9		0.9		ASTM D5470	
THERMAL PERFORMANCE vs PRES	SURE						
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"		8.5 I	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 (Bergquist modified) 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.

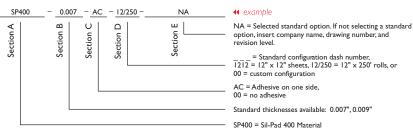
Typical Applications Include:

- Power supplies
- Power semiconductors
- Military Specifications: - MIL-M-38527/8A
- Automotive electronics • U.L. File Number E59150
- Motor controls
- FSCM Number 55285
- MIL-M-38527C - MIL-I-49456

Configurations Available:

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

Building a Part Number



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

BERGQUIST

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Standard Options

- MIL-M-87111