Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

Bergquist
SP600-05

For any questions, you can email us directly:
sales@integrated-circuit.com

SIL-PAD 400®

The Original Fiberglass Based Sil-Pad

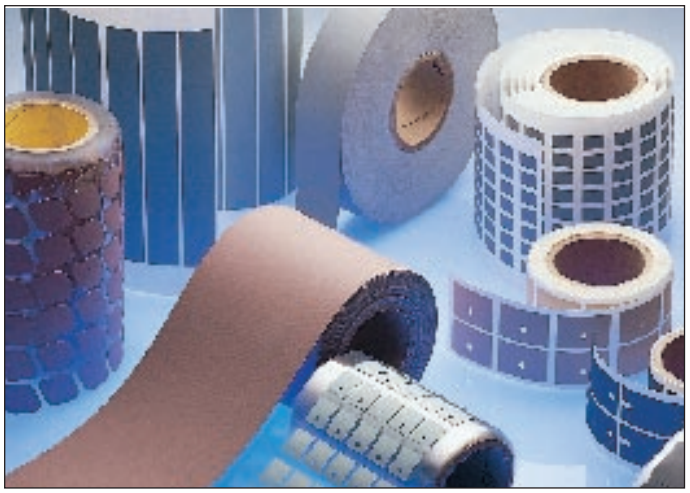
SIL-PAD 400

Sil-Pad 400 is the original Sil-Pad material. Sil-Pad 400 is a composite of silicone rubber and fiberglass. It is flame retardant and is specially formulated for use as a thermally conductive insulator. Primary use 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 gives excellent cut-through resistance and Sil-Pad 400 is non-toxic and resists damage from cleaning agents.

SIL-PAD 600

Sil-Pad 600 is a silicone elastomer filled with special ingredients to provide higher thermal performance. This material has similar physical characteristics of the Sil-Pad 400 material with enhanced thermal performance.



Special Thicknesses, Rolls and Sheets

Sil-Pad 400 can be supplied on special order in a variety of thicknesses from .007 to .045 inches to fulfill special requirements of insulation path minimums or other spacing needs. Sil-Pad 400 and 600 are available in die-cut parts, sheets (6" x 6" min., 6" x 12", 8" x 8", 10" x 10" and 12" x 12") and roll form.

Physical Properties	Sil-Pad 400, .007 in.	Sil-Pad 400, .009 in	Sil-Pad 600	Test Method
Color	Gray	Gray	Green	
Thickness Inches (mm)	.007 ± .001" 0.178 ±0.025	.009 ± .001" .229 ± .025	.009 ± .001" .229 ± .025	ASTM D 374
Breaking Strength Lbs/inch (kN/m)	100 (18)	100 (18)	100 (18)	ASTM D 1458
Elongation, % 45° to warp and fill	40	40	40	ASTM D 412
Hardness, Shore A	85	85	85	ASTM D 2240
Tensile Strength, kPsi (MPa) 45° to warp and fill		3 (20)	3 (20)	ASTM D 412
Continuous Use Temp., °C	-60 to +180	-60 to +180	-60 to +180	
Specific Gravity	2.0	2.0	1.8	ASTM D 792
Construction	Silicone/Fiberglass	Silicone/ Fiberglass		
Thermal Vacuum Weight Loss % (TML) as manufactured Post Cure 24 Hrs. 400 °F	 .40 .25	 .40 .25		 NASA SP-R-0022A
Volatile Condensable Material % (CVCM) as manufactured Post Cure 24 Hrs. 400°F	 .11 .07	 .11 .07		 NASA SP-R-0022A

Thermal Properties	Sil-Pad 400, .007 in.	Sil-Pad 400, .009 in	Sil-Pad 600	Test Method
Thermal Resistance, °C-in²/W	0.45	0.50	0.35	ASTM D 5470
Thermal Conductivity, W/m-K	0.9	0.9	1.0	ASTM D 5470

Electrical Properties	Sil-Pad 400, .007 in.	Sil-Pad 400, .009 in	Sil-Pad 600	Test Method
Breakdown Voltage, Volts a-c Min.	3500	4500	4500	ASTM D 149
Dielectric Constant, 1000 Cps (Hz)	5.5	5.5	5.0	ASTM D 150
Volume Resistivity, Ohm Metre	1.0×10^{11}	1.0×10^{11}	1.0×10^{11}	ASTM D 257