

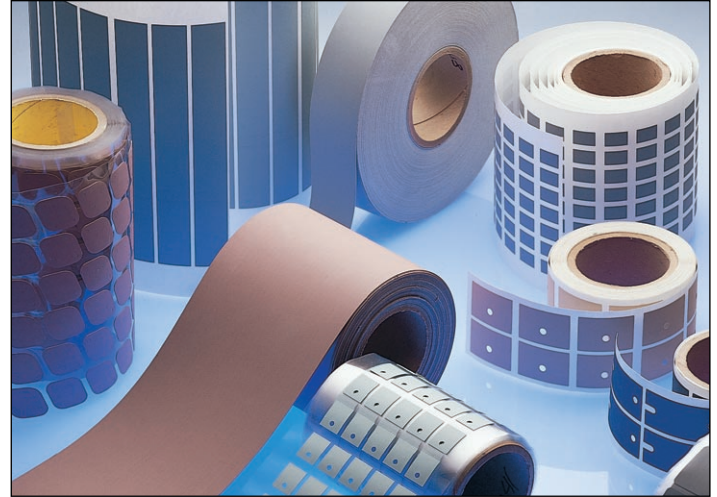
SIL-PAD 400®

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 | .007 ± .001" | .009 ± .001" | .009 ± .001" | |
| (mm) | 0.178 ± 0.025 | .229 ± .025 | .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 | .40 | .40 | | NASA |
| Post Cure 24 Hrs. 400 °F | .25 | .25 | | SP-R-0022A |
| Volatile Condensable Material | | | | |
| % (CVCM) as manufactured | .11 | .11 | | NASA |
| Post Cure 24 Hrs. 400°F | .07 | .07 | | SP-R-0022A |
| Thermal Properties | Sil-Pad 400, .007 in. | Sil-Pad 400, .009 in | Sil-Pad 600 | Test Method |
| Thermal Resistance, °C-in ² /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 x 10 ¹¹ | 1.0 x 10 ¹¹ | 1.0 x 10 ¹¹ | ASTM D 257 |