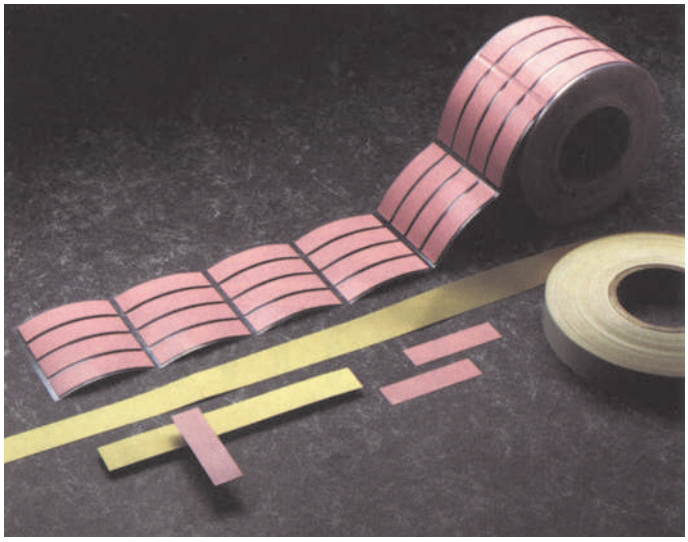
Low Pressure

Sil-Pad 800-S® and Sil-Pad 900-S®

The Sil-Pad 800 and 900 family of thermally conductive insulation materials are designed for low cost applications requiring high thermal performance. These applications also typically have low mounting pressures for component clamping.

The Sil-Pad 800-S material combines a smooth surface design with high thermal conductivity and electrical insulation. These features optimize the thermal resistance properties at low pressure.

Applications requiring low component clamping forces include discrete semiconductors (TO-220, TO-247 and TO-218) mounted with spring clips. Spring clips provide quick assembly but apply a limited amount of pressure to the semiconductor. The smooth surface texture of Sil-Pad 800-S maximizes thermal performance.



Die-Cut parts, Rolls and Sheets

Sil-Pad 800-S and Sil-Pad 900-S 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 800-S	Sil-Pad 900-S	Test Method
Color	Gold	Mauve	Visual
Thickness Inches (mm)	.005 ± .001 (.13 ± .025)	.009 ± .001 (.23 ± .25)	ASTM D 374
Tensile Elongation 45° to warp and fill	20	20	ASTM D 412
Tensile Strength, MPa 45° to warp and fill, (kPsi)	12 (1.7)	9 (1.3)	ASTM D 412
Thermal Properties	**Sil-Pad 800-S**	**Sil-Pad 900-S**	**Test Method**
C-in²/Watt Thermal Resistance, cm²/Watt	0.1 0.85	0.2 1.5	ASTM D 5470
Thermal Conductivity, W/m-K	1.6	1.6	ASTM D 5470
Electrical Properties	**Sil-Pad 800-S**	**Sil-Pad 900-S**	**Test Method**
Breakdown Voltage Type 1 Electrodes, kVa-c Type 3 Electrodes, kVa-c	 1.7 3.0	 5.5 8.3	 ASTM D 149 ASTM D 149
Volume Resistivity, Ohm Metre	1.0×10^{10}	1.0×10^{10}	ASTM D 257
Dielectric Constant, 1kHz	6.0	6.0	ASTM D 150