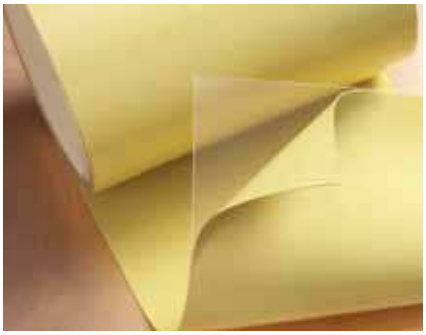
Sil-Pad® 1100ST

Affordable, Electrically Insulating, Thermally Conductive, Soft Tack Elastomeric Material

Features and Benefits

- Inherent tack on both sides for exceptional thermal performance and easy placement
- Re-positionable for higher utilization, ease of use and assembly error reduction
- Lined on both sides for ease of handling prior to placement in high volume assemblies
- Exhibits exceptional thermal performance even at a low mounting pressure
- Fiberglass reinforced
- Value alternative to Sil-Pad 1500ST



Sil-Pad 1100ST (Soft Tack) is a fiberglass-reinforced thermal interface material featuring inherent tack on both sides. The material exhibits excellent thermal performance at low mounting pressures. The material is supplied on two liners for exceptionally easy handling prior to auto-placement in high-volume assemblies. The material is ideal for placement between an electronic power device and its heat sink.

TYPICAL PROPERTIES OF SIL-PAD 1100ST

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Yellow	Yellow	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	—
Thickness (inch) / (mm)	0.012	0.305	ASTM D374
Inherent Surface Tack (1or 2 sided)	2	2	—
Hardness (Shore 00) (1)	85	85	ASTM D2240
Breaking Strength (lb/inch) / (kN/m)	2.6	0.5	ASTM D1458
Elongation (% - 45° to Warp and Fill)	16	16	ASTM D412
Tensile Strength (psi) / (MPa)	220	1.5	ASTM D412
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—
ELECTRICAL			
Dielectric Breakdown Voltage (Vac)	5000	5000	ASTM D149
Dielectric Constant (1000 Hz)	5.0	5.0	ASTM D150
Volume Resistivity (Ohm-meter)	10^{10}	10^{10}	ASTM D257
Flame Rating	V-O	V-O	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K)	1.1	1.1	ASTM D5470

THERMAL PERFORMANCE vs. PRESSURE					
Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)	2.72	2.71	2.68	2.62	2.23
Thermal Impedance (°C-in²/W) (2)	0.75	0.71	0.66	0.61	0.57

1) Thirty second delay value Shore 00 hardness scale.
2) 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:

- Automotive ECMs
- Motor controls
- Power supplies
- Between an electronic power device and its heat sink

Configurations Available:

- Sheet form, die-cut parts and roll form
- Top and bottom liners

Building a Part Number

SP1100ST – 0.012 – 02 – 00 – NA

Section A: SP1100ST = Sil-Pad 1100ST Material
Section B: Standard thicknesses available: 0.012"
Section C: 02 = Natural tack, both sides
Section D: 1212 = 12"x12" sheets, 12/250 = 12"x 250' rolls or 00 = custom configuration
Section E: NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

Standard Options

example

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

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