

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
- Affordable alternative to Sil-Pad I500ST



Sil-Pad I100ST 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 Applications

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

TYPICAL PROPERTIES OF SIL-PAD I100ST

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 (1 or 2 sided)	2	2	—			
Hardness Bulk Rubber (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-in ² /W) ⁽²⁾	0.75	0.71	0.66	0.61	0.57

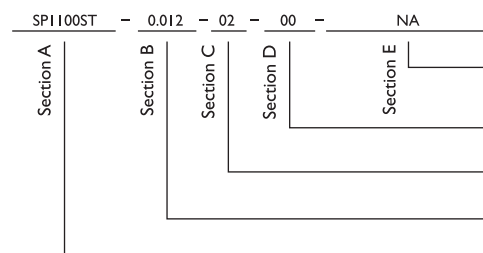
1) Thirty second delay value Shore 00 hardness scale.
2) The ASTM D5470 (Bergquist modified) test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

RoHS Compliant

Configurations Available:

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

Building a Part Number



Standard Options

◀ example

NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

1212 = 12"x12" sheets, 12/250 = 12"x 250' rolls or 00 = custom configuration

02 = Natural tack, both sides

Standard thicknesses available: 0.012"

SPI I100ST = Sil-Pad I100ST Material

Note: To build a part number, visit our website at www.bergquistcompany.com.

Sil-Pad®: U.S. Patent 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others