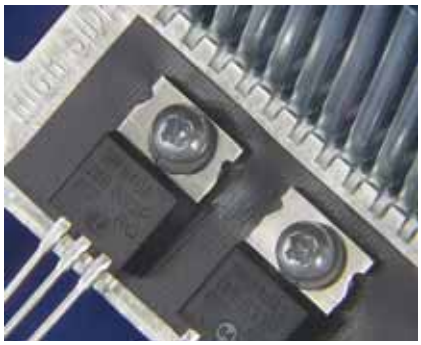
Sil-Pad® 1200

Exceptional Performance, Thermally Conductive Elastomeric Material

Features and Benefits

- Thermal Impedance: 0.53°C-in²/W (@ 50 psi)
- Exceptional thermal performance at lower application pressures
- Smooth and non-tacky on both sides for easy re-positioning, ease of use and assembly error reduction
- Superior breakdown voltage and surface "wet out" values
- Designed for applications where electrical isolation is critical
- Excellent cut-thru resistance, designed for screw and clip mounted applications



Sil-Pad 1200 is a silicone based, fiberglass-reinforced thermal interface material featuring a smooth, highly compliant surface. The material features a non-tacky surface for efficient re-positioning and ease of use, as well as an optional adhesive coating. Sil-Pad 1200 exhibits exceptional thermal performance at low and high application pressures. The material is ideal for placement between electronic power devices and a heatsink for screw and clip mounted applications.

TYPICAL PROPERTIES OF SIL-PAD 1200

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Black	Black	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	—
Thickness (inch) / (mm)	0.009 to 0.016	0.229 to 0.406	ASTM D374
Hardness Bulk Rubber (Shore 00)	80	80	ASTM D2240
Elongation (% - 45° to warp and fill)	20	20	ASTM D412
Tensile Strength (psi) / (MPa)	1300	9	ASTM D412
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—
ELECTRICAL			
Dielectric Breakdown Voltage (Vac)	6000	6000	ASTM D149
Dielectric Constant (1000 Hz)	8.0	8.0	ASTM D150
Volume Resistivity (Ohm-meter)	10^9	10^9	ASTM D257
Flame Rating	V-O	V-O	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K) (1)	1.8	1.8	ASTM D5470

THERMAL PERFORMANCE vs PRESSURE

Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)	2.82	2.64	2.41	2.13	1.90
Thermal Impedance (°C-in²/W) (2)	0.71	0.62	0.53	0.47	0.41

1) This is the measured thermal conductivity of the Sil-Pad Compound.
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.

RoHS Compliant

Typical Applications Include:

- Automotive electronics control modules
- Motor controls
- Discrete devices
- Power supplies
- Audio amplifiers
- Telecommunications

Configurations Available:

- Sheet form, slit-to-width roll form
- Adhesive coating
- 9, 12 and 16 mil thicknesses
- Die-cut parts

We produce thousands of specials and customs.
Tooling charges vary depending on tolerances and complexity of the part.

Building a Part Number

SP1200 – 0.009 – AC – 00 – NA

- Section A: SP1200 = Sil-Pad 1200 Material
- Section B: Standard thicknesses available: 0.009", 0.012", 0.016"
- Section C: AC = Adhesive, one side; 00 = No adhesive
- Section D: ___ = Standard configuration dash number, 1212 = 12" x 12" 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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