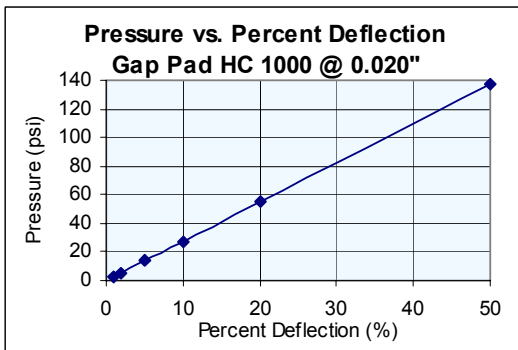


Features and Benefits

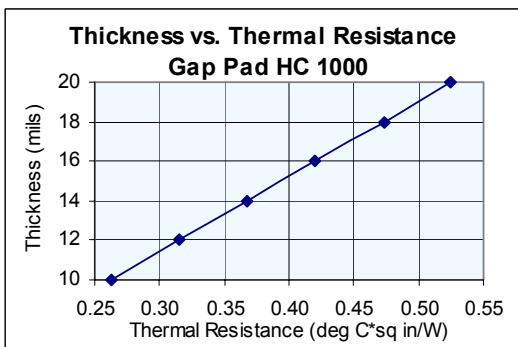
- Thermal conductivity 1.0 W/m-K
- Extremely conformable
- “Gel-Like” modulus
- Two-sided inherent surface tack

Gap Pad HC 1000 is an extremely conformable low modulus polymer that acts as a thermal interface between electrical components and heat sinks. The “Gel-Like” modulus allows this material to fill air gaps to enhance the thermal performance of electrical systems. Gap Pad HC1000 is offered with removable protective liners on both sides of the material.

To calculate the approximate amount of deflection for a specific material thickness, at a given pressure, refer to the graph below. Multiply the thickness of the material by the percentage at the given pressure.*



The resultant thickness of the Gap Pad will determine the thermal resistance. Subtracting the initial gap pad thickness by the deflection value, obtained above, will give the resultant thickness. Refer to the graph below to obtain the thermal resistance of the material.



Typical Properties of Gap Pad HC1000			
Property	Imperial Value	Metric Value	Test Method
Color	Gray	Gray	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	***
Thickness, (inch) / (mm)	0.010 to 0.020	0.254 to 0.508	ASTM D374
Inherent Surface Tack, 1 or 2 sided	2	2	***
Density, (g/cc)	1.6	1.6	ASTM D792
Heat Capacity, (J/g-K)	1.0	1.0	ASTM C351
Hardness, bulk rubber, (Shore 00)	5	5	ASTM D2240
Young's Modulus, (psi)/(kPa) (I)	15	103	ASTM D575
Continuous Use Temp., (°F) / (°C)	-76 to 392	-60 to 200	***
Electrical	Imperial Value	Metric Value	Test Method
Dielectric Breakdown Voltage, (VAC)	>5000	>5000	ASTM D149
Dielectric Constant, (1000 Hz)	6.0	6.0	ASTM D150
Volume Resistivity, (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257
Flame Rating	94 V-O	94 V-O	U.L.
Thermal	Imperial Value	Metric Value	Test Method
Thermal Conductivity, (W/m-K)	1.0	1.0	ASTM D5470

1) Graphs and data generated from Young's Modulus @ 10% deflection, calculated using 0.01 inch/min. step rate of strain with a sample size of 0.79 inch² and 0.020" thick. For more information on Gap Pad modulus refer to Bergquist Application Note #116.

Typical Applications Include

- Computer and peripherals
- Telecommunications
- Heat interfaces to frames, chassis, or other heat spreading devices
- RDRAM™ memory modules / chip scale packages
- CDROM / DVD cooling
- Area where irregular surfaces need to make a thermal interface to a heat sink

Configurations

Available:

- Sheet form
- Die-Cut parts
- Roll form (converted or unconverted)
- Standard sheet size is 8" x 16"
- Standard thickness of:
0.010", 0.015", 0.020"

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

Gap Pad[®]: U.S. Patent 5,679,457 and others.

Product Data Sheet / PDS-0602-001-01; Rev 01