

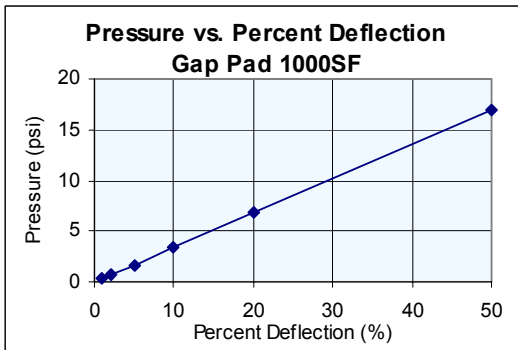
Thermally Conductive Silicone-Free Gap Filling Material

Features and Benefits

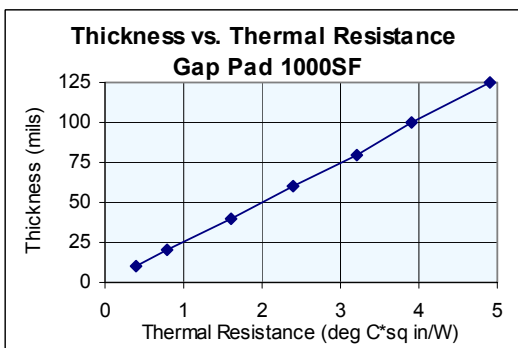
- Thermal conductivity 1.0 W/m-K
- Silicone free
- Medium compliance with easy handling
- Electrically isolating

The new Gap Pad 1000SF is a thermally conductive, electrically insulating, silicone-free polymer specially designed for silicone-sensitive applications. The material is ideal for applications with high standoff and flatness tolerances. Gap Pad 1000SF is reinforced for easy material handling and added durability during assembly. The material is available with a protective liner 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 1000SF			
Property	Imperial Value	Metric Value	Test Method
Color	Green	Green	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	***
Thickness, (inch) / (mm)	0.010 to 0.125	0.254 to 3.175	ASTM D374
Inherent Surface Tack, 1 or 2 sided	2	2	***
Density, (g/cc)	2.0	2.0	ASTM D792
Heat Capacity, (J/g-K)	1.1	1.1	ASTM C351
Hardness, bulk rubber, (Shore 00)	35	35	ASTM D2240
Young's Modulus, (psi)/(kPa) (I)	34	234	ASTM D575
Continuous Use Temp., (°F) / (°C)	-76 to 257	-60 to 125	***
Electrical			
Dielectric Breakdown Voltage, (Vac)	>5000	>5000	ASTM D149
Dielectric Constant, (1000 Hz)	5	5	ASTM D150
Volume Resistivity, (Ohm-meter)	>10 ¹⁰	>10 ¹⁰	ASTM D257
Flame Rating	94 V-1	94 V-1	U.L.
Thermal			
Thermal Conductivity, (W/m-K)	0.9	0.9	ASTM D5470

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

Typical Applications Include

- Digital disk drives
- Automotive modules
- Fiber optics modules

Configurations

Available:

- Sheet form
- Die-Cut parts
- Standard sheet size is 8" x 16"
- Standard thickness of:
0.010", 0.015", 0.020", 0.040", 0.060", 0.080", 0.100", 0.125"

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.