Gap Pad®VO

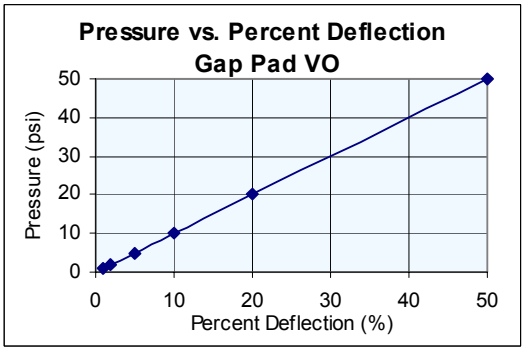
Conformable, Thermally Conductive Material for Filling Air Gaps

Features and Benefits

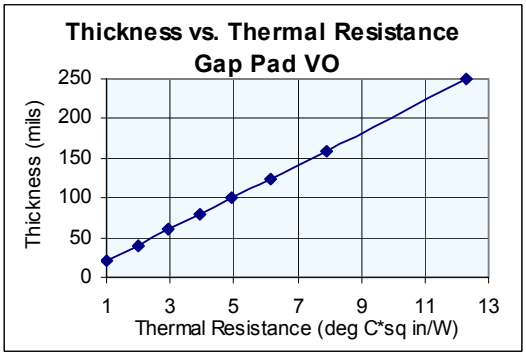
- Thermal conductivity 0.8 W/m-K
- Enhanced puncture, shear, and tear resistance
- Easy material handling
- Electrically isolating

Gap Pad VO is a cost effective thermally conductive interface. Gap Pad VO is a filled thermally conductive polymer supplied on a rubber coated fiberglass carrier allowing for easy material handling. The conformable nature of Gap Pad VO allows the pad to fill in air gaps between PC boards and heat sinks or a metal chassis.

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 VO			
Property	**Imperial Value**	**Metric Value**	**Test Method**
Color	Gold / Pink	Gold / Pink	Visual
Reinforcement Carrier	Sil-Pad	Sil-Pad	***
Thickness, (inch) / (mm)	0.020 to 0.250	0.508 to 6.350	ASTM D374
Inherent Surface Tack, 1 or 2 sided	1	1	***
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)	40	40	ASTM D2240
Young's Modulus, (psi)/(kPa) (1)	100	689	ASTM D575
Continuous Use Temp., (°F) / (°C)	-76 to 392	-60 to 200	***
Electrical	**Imperial Value**	**Metric Value**	**Test Method**
Dielectric Breakdown Voltage, (VAC)	>6000	>6000	ASTM D149
Dielectric Constant, (1000 Hz)	5.5	5.5	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)	0.8	0.8	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 inch^2. For more information on Gap Pad modulus refer to Bergquist Application Note #116.

Typical Applications Include

- Telecommunications
- Computer and peripherals
- Power conversion
- Between heat generating semiconductors and a heat sink
- Area where heat needs to be transferred to a frame, chassis, or other type of heat spreader
- Between heat generating magnetic components and a heat sink

Configurations

Available:

- Sheet form
- Die-Cut parts
- With or without pressure sensitive adhesive
- Standard sheet size is 8" x 16"
- Standard thickness of:
  0.020", 0.040", 0.060", 0.080", 0.100", 0.125", 0.160", 0.200", 0.250"

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.

RICO PRODUCTS INC.
Henkel Bergquist Preferred Converter
10135 Gottschalk Parkway
Chagrin Falls, Ohio 44023
sales@rico-inc.com
+1 440-543-9209