Gap Pad® VO

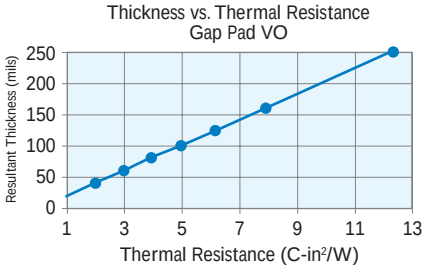
Conformable, Thermally Conductive Material for Filling Air Gaps

Features and Benefits

- Thermal conductivity: 0.8 W/m-K
- Enhanced puncture, shear and tear resistance
- Conformable gap filling material
- Electrically isolating

Gap Pad VO is a cost-effective, thermally conductive interface material. The material 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.

Note: Resultant thickness is defined as the final gap thickness of the application.



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 E1269
Hardness, Bulk Rubber (Shore 00) (1)	40	40	ASTM D2240
Young's Modulus (psi) / (kPa) (2)	100	689	ASTM D575
Continuous Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—
ELECTRICAL			
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	V-O	V-O	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K)	0.8	0.8	ASTM D5470

1) Thirty second delay value Shore 00 hardness scale.
2) Young's Modulus, calculated using 0.01 in/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:

- 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 and die-cut parts

Building a Part Number

GPVO – 0.040 – AC – 0816 – NA

Section A: GPVO = Gap Pad VO Material

Section B: Standard thicknesses available: 0.020", 0.040", 0.060", 0.080", 0.100", 0.125", 0.160", 0.200", 0.250"

Section C: AC = Adhesive on Sil-Pad® side, natural tack on one side
00 = No pressure sensitive adhesive, natural tack on one side

Section D: 0816 = Standard sheet size 8" x 16" 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.

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

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