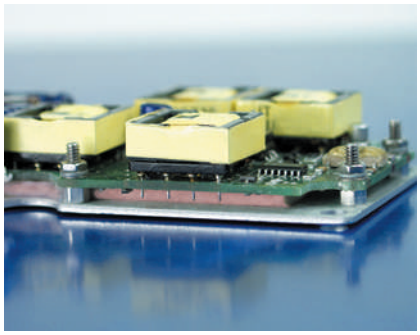
Gap Pad® VO Ultra Soft

Ultra Conformable, Thermally Conductive Material for Filling Air Gaps

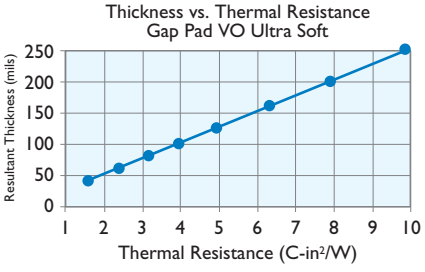
Features and Benefits

- Thermal conductivity: 1.0 W/m-K
- Highly conformable, low hardness
- "Gel-like" modulus
- Decreased strain
- Puncture, shear and tear resistant
- Electrically isolating



Gap Pad VO Ultra Soft is recommended for applications that require a minimum amount of pressure on components. The viscoelastic nature of the material also gives excellent low-stress vibration dampening and shock absorbing characteristics. Gap Pad VO Ultra Soft is an electrically isolating material, which allows its use in applications requiring isolation between heat sinks and high-voltage, bare-leaded devices.

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



TYPICAL PROPERTIES OF GAP PAD VO ULTRA SOFT

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Mauve/Pink	Mauve/Pink	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	—
Thickness (inch) / (mm)	0.020 to 0.250	0.508 to 6.350	ASTM D374
Inherent Surface Tack (1 sided)	1	1	—
Density (Bulk Rubber) (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)	5	5	ASTM D2240
Young's Modulus (psi) / (kPa) (2)	8	55	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-0	V-0	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K)	1.0	1.0	ASTM D5470
THERMAL PERFORMANCE vs. STRAIN			

Deflection (% strain)	10	20	30
Thermal Impedance (°C-in²/W) 0.040" (3)	1.97	1.87	1.68

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. 3) 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.

Typical Applications Include:

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

Configurations Available:

- Sheet form and die-cut parts

Building a Part Number

GPVOUS – 0.100 – AC – 0816 – NA

Section A: GPVOUS = Gap Pad VO Ultra Soft 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
01 = 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.

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