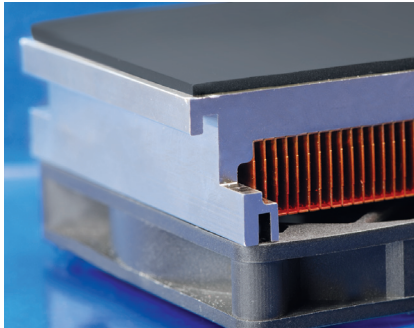


Gap Pad® VO Ultra Soft-B

Ultra Conformable, Thermally Conductive Material for Filling Air Gaps

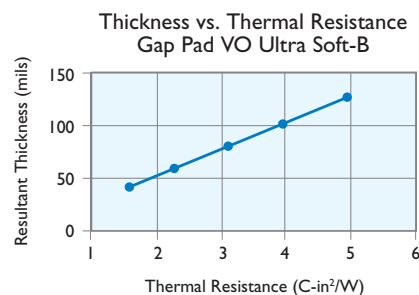
Features and Benefits

- 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-B 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-B 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-B				
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD	
Color	Black/Black	Black/Black	Visual	
Reinforcement Carrier	Fiberglass	Fiberglass	—	
Thickness (inch) / (mm)	0.020 to 0.125	0.508 to 3.175	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 (1 Mhz)	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-in ² /W) 0.040" (3)	1.97	1.87	1.68
	Thermal Impedance (°C-cm ² /W) 1.016mm (3)	12.7	12.1	10.8

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 inch. 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.

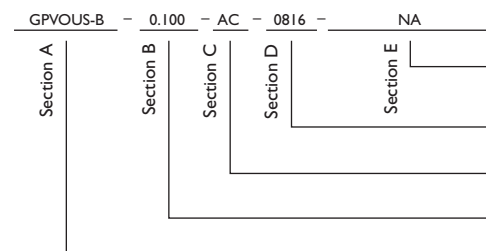
Typical Applications:

- Various IC packages
- Thermally enhanced BGA packages
- Between any heat-generating semiconductor and a heat sink
- Computers and peripherals
- Telecommunications
- Power conversion
- Automotive
- LED lighting packages

Configurations Available:

- Sheet form and die-cut parts

Building a Part Number



Standard Options

◀ example

NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

0816 = Standard sheet size 8" x 16", or 00 = custom configuration

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

Standard thicknesses available: 0.020", 0.040", 0.060", 0.080", 0.100", 0.125"

GPVOUS-B = Gap Pad VO Ultra Soft-B Material

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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