



# Gap Pad® VO Ultra Soft

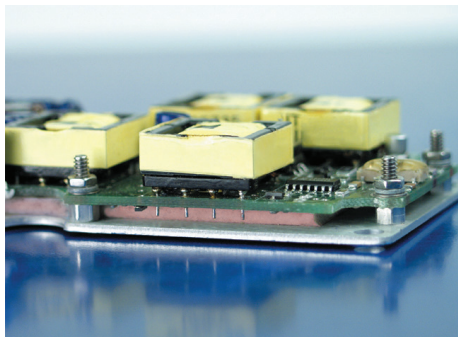
July 2011

**PRODUCT DESCRIPTION**

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: To build a part number, visit our website at [www.bergquistcompany.com](http://www.bergquistcompany.com).*

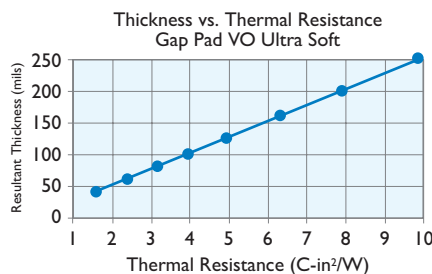
TYPICAL PROPERTIES OF GAP PAD VO ULTRA SOFT				
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD	
Color	Mauve/Pink	Mauve/Pink	Visual	
Reinforcement Carrier	Fiberglass	Fiberglass	—	
Thickness (inch) / (mm)	0.020 to 0.250	0.508 to 6.350	ASTM D374	
Inherent Surface Tack (1 sided)	1	1	—	
Density (Bulk Rubber) (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	—	
<b>ELECTRICAL</b>				
Dielectric Breakdown Voltage (Vac)	6000	6000	ASTM D149	
Dielectric Constant (1000 Hz)	5.5	5.5	ASTM D150	
Volume Resistivity (Ohm-meter)	10 <sup>11</sup>	10 <sup>11</sup>	ASTM D257	
Flame Rating	V-0	V-0	U.L. 94	
<b>THERMAL</b>				
Thermal Conductivity (W/m-K)	1.0	1.0	ASTM D5470	
<b>THERMAL PERFORMANCE vs. STRAIN</b>				
	<b>Deflection (% strain)</b>	<b>10</b>	<b>20</b>	<b>30</b>
	Thermal Impedance (°C-in <sup>2</sup> /W) 0.040" (3)	1.97	1.87	1.68
<small>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<sup>3</sup>. 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.</small>				

**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



## Disclaimer

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Reference 0.1