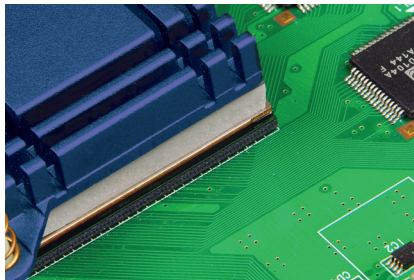


# Gap Pad® VO Ultimate

Ultra Conformability, Robust, Improved Thermal Conductivity, Gap Filling Material

## Features and Benefits

- Thermal conductivity: 1.3 W/m-K
- Ultra conformability
- Gel-like modulus
- Excellent rebound
- Decreased strain
- Remarkable handling
- Electrically isolating

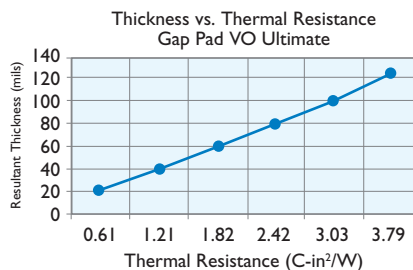


Gap Pad® VO Ultimate is a robust, highly compliant product that is ideal for both small and large gap designs. The fiberglass carrier on one side of the material allows ease of rework, excellent handling characteristics and puncture resistance. Additionally the fiberglass carrier has a slight inherent tack, minimizing any shifting during assembly.

The conformable and elastic nature of Gap Pad® VO Ultimate allows excellent interfacing and wet-out characteristics, even to surfaces with a high degree of roughness or uneven topography.

The construction of Gap Pad® VO Ultimate; one side has high inherent tack, while the other side has minimal tack. This combination is useful for manual and automated processes.

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



## TYPICAL PROPERTIES OF GAP PAD VO ULTIMATE

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Gray/Black	Gray/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 side)	I	I	—
Density (Bulk Rubber) (g/cc)	1.8	1.8	ASTM D792
Heat Capacity (J/g-K)	1.0	1.0	ASTM E1269
Hardness (Bulk Rubber) (Shore 00) (1)	30	30	ASTM D2240
Young's Modulus (psi) / (kPa) (2)	13	90	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)	5.0	5.0	ASTM D150
Volume Resistivity (Ohm-meter)	10 <sup>9</sup>	10 <sup>9</sup>	ASTM D257
Flame Rating	V-O	V-O	UL 94
<b>THERMAL</b>			
Thermal Conductivity (W/m-K)	1.3	1.3	ASTM D5470
<b>THERMAL PERFORMANCE vs. STRAIN</b>			
	Deflection (% strain)		
	10	20	30
Thermal Impedance (°C-in <sup>2</sup> /W) 0.040" (3)	1.60	1.55	1.46

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.

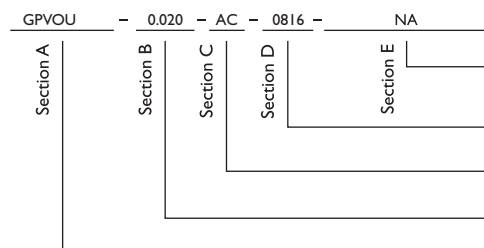
## Typical Applications:

- 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 01 = No pressure sensitive adhesive, natural tack on one side

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

GPVOU = Gap Pad VO Ultimate Material

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



[www.bergquistcompany.com](http://www.bergquistcompany.com)

The Bergquist Company - North American Headquarters  
18930 West 78th Street  
Chanhassen, MN 55317  
Phone: 800-347-4572  
Fax: 952-835-0430

The Bergquist Company - European Headquarters  
Netherlands  
Phone: 31-35-5380684  
Fax: 31-35-5380295

The Bergquist Company - Asia Headquarters  
Hong Kong  
Phone: 852-2690-9296  
Fax: 852-2690-2344

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