

# Gap Pad® 1500S30

Highly Conformable, Thermally Conductive, Reinforced "S-Class" Gap Filling Material

## Features and Benefits

- Thermal conductivity: 1.3 W/m-K
- Highly conformable / low hardness
- Decreased strain on fragile components
- Fiberglass reinforced for puncture, shear and tear resistance
- Quick rebound to original shape

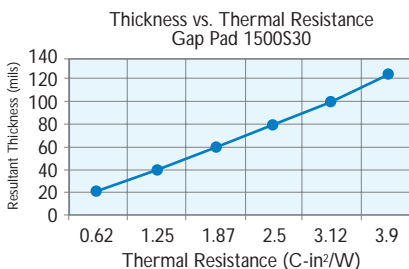
Gap Pad 1500S30 is a highly compliant Gap Pad material that is ideal for fragile component leads. The material is fiberglass reinforced for improved puncture resistance and handling characteristics. Gap Pad 1500S30 maintains a conformable, yet elastic nature that provides excellent interfacing and wet-out characteristics, even to surfaces with high roughness or uneven topography.

Gap Pad 1500S30 features an inherent tack on both sides of the material, eliminating the need for thermally impeding adhesive layers.

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

## Typical Applications:

- Any heat-generating component and a heat sink
- Computers and peripherals
- Telecommunications
- Between any heat-generating semiconductor and a heat sink
- Shielding devices



TYPICAL PROPERTIES OF GAP PAD 1500S30				
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD	
Color	Light Pink	Light Pink	Visual	
Reinforcement Carrier	Fiberglass	Fiberglass	ASTM D374	
Thickness (inch) / (mm)	0.020 to 0.125	0.508 to 3.175	ASTM D374	
Inherent Surface Tack (1 or 2 sided)	2	2	—	
Density (g/cc)	1.8	1.8	ASTM D792	
Heat Capacity (J/g-K)	1.0	1.0	ASTM E1269	
Hardness (Bulk Rubber) (Shore 00) <sup>1</sup>	30	30	ASTM D2240	
Young's Modulus (psi) / (kPa) <sup>2</sup>	16	110	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>11</sup>	10 <sup>11</sup>	ASTM D257	
Flame Rating	V-O	V-O	U.L. 94	
<b>THERMAL</b>				
Thermal Conductivity (W/m-K)	1.3	1.3	ASTM D5470	
<b>THERMAL PERFORMANCE vs. PRESSURE</b>				
	Pressure (psi)	10	25	50
TO-220 Thermal Performance (°C/W) (20 mil)		2.50	2.26	1.94
Thermal Impedance (°C-in <sup>2</sup> /W) (3)		0.93	0.71	0.57
TO-220 Thermal Performance (°C/W) (40 mil)		3.07	2.57	2.16
Thermal Impedance (°C-in <sup>2</sup> /W) (3)		1.23	1.00	0.78

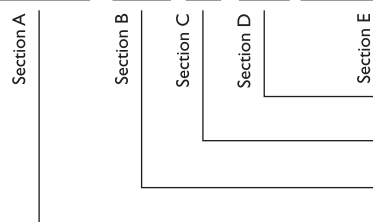
1) Thirty second delay value Shore 00 hardness scale. 2) Young's Modulus, calculated using 0.01 in/min. step rate of strain with a sample size of 0.79 inch<sup>2</sup>. For more information on Gap Pad modulus, refer to Bergquist Application Note #116. 3) The ASTM D5470 test fixture was used. The recorded 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.

## Configurations Available:

- Sheet form and die-cut parts

## Building a Part Number

GP1500S30 - 0.020 - 02 - 0816 - NA



◀ 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

02 = Natural tack, both sides

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

GP1500S30 = Gap Pad 1500S30 Material

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

## Standard Options

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



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

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