

Gap Pad® HC 3.0

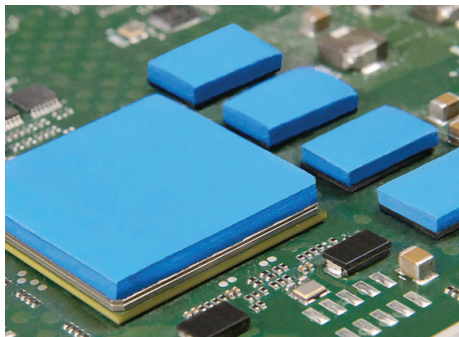
April 2015

PRODUCT DESCRIPTION

High-Compliance, Thermally Conductive, Low Modulus Material

FEATURES AND BENEFITS

- Thermal Conductivity: 3.0 W/m-K
- High-compliance, low compression stress
- Fiberglass reinforced for shear and tear resistance



Gap Pad® HC 3.0 is a soft and compliant gap filling material with a thermal conductivity of 3.0 W/m-K. The material offers exceptional thermal performance at low pressures due to a unique 3.0 W/m-K filler package and low-modulus resin formulation. The enhanced material is ideal for applications requiring low stress on components and boards during assembly. Gap Pad® HC 3.0 maintains a conformable nature that allows for quick recovery and excellent wet-out characteristics, even to surfaces with high roughness and/or topography.

Gap Pad® HC 3.0 is offered with natural inherent tack on both sides of the material, eliminating the need for thermally-impeding adhesive layers. The top side has minimal tack for ease of handling. Gap Pad® HC 3.0 is supplied with protective liners on both sides.

Note: To build a part number, visit our website at www.bergquistcompany.com.

TYPICAL PROPERTIES OF GAP PAD HC 3.0

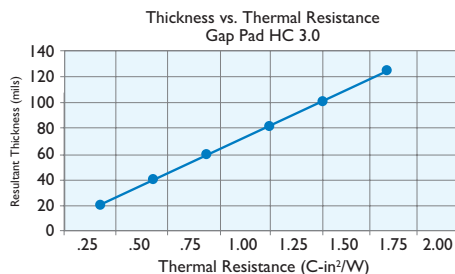
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD	
Color	Blue	Blue	Visual	
Reinforcement Carrier	Fiberglass	Fiberglass	—	
Thickness (inch) / (mm)	0.010 to 0.125	0.508 to 3.175	ASTM D374	
Inherent Surface Tack	2	2	—	
Density (Bulk Rubber) (g/cc)	3.1	3.1	ASTM D792	
Heat Capacity (J/g-K)	1.0	1.0	ASTM E1269	
Hardness (Bulk Rubber) (Shore 00) (4)	15	15	ASTM D2240	
Young's Modulus (psi) / (kPa) (1)	16	110	ASTM D575	
Typical Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—	
ELECTRICAL				
Dielectric Breakdown Voltage (Vac) (3)	5000	5000	ASTM D149	
Dielectric Constant (1000 Hz)	6.5	6.5	ASTM D150	
Volume Resistivity (Ohm-meter)	10 ¹⁰	10 ¹⁰	ASTM D257	
Flame Rating	V-O	V-O	U.L. 94	
THERMAL				
Thermal Conductivity (W/m-K) (2)	3.0	3.0	ASTM D5470	
THERMAL PERFORMANCE vs. STRAIN				
	Deflection (% strain)	10	20	30
	Thermal Impedance (°C-in ² /W) 0.040" (2)	0.57	0.49	0.44
1) Young's Modulus, calculated using 0.01 in/min. step rate of strain with a sample size of 0.79 inch ² after 5 minutes of compression at 10% strain on a 1mm thickness material. 2) 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. 3) Minimum value at 20 mil. 4) Thirty second delay value on Shore 00 hardness scale.				

TYPICAL APPLICATIONS INCLUDE

- Telecommunications
- ASICs and DSPs
- Consumer electronics
- Thermal modules to heat sinks

CONFIGURATIONS AVAILABLE

- Sheet form and die-cut parts



Disclaimer

Note:

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