# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Gap Pad<sup>®</sup> HC 5.0

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#### **PRODUCT DESCRIPTION**

Highly Conformable, Thermally Conductive, Low Modulus Material

#### FEATURES AND BENEFITS

- Thermal Conductivity: 5.0 W/m-K
- High-compliance, low compression stress
- Fiberglass reinforced for shear and tear resistance



GAP PAD<sup>™</sup> HC 5.0 is a soft and compliant gap filling material with a thermal conductivity of 5.0 W/m-K. The material offers exceptional thermal performance at low pressures due to a unique 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<sup>™</sup> HC 5.0 maintains a conformable nature that allows for excellent interfacing and wet-out characteristics, even to surfaces with high roughness and/or topography.

GAP PAD<sup>™</sup> HC 5.0 is offered with natural inherent tack on both sides of the material, eliminating the need for thermallyimpeding adhesive layers. The top side has minimal tack for ease of handling. GAP PAD<sup>™</sup> HC 5.0 is supplied with protective liners on both sides.

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

PROPERTY	IMPERIAL VALUE	METRIC VALUE		TEST METHOD	
Color	Violet	Violet		Visual	
Reinforcement Carrier	Fiberglass	Fiberglass			
Thickness (inch) / (mm)*	0.020, 0.040, 0.060, 0.080, 0.100, 0.125	0.508, 1.016, 1.524, 2.032, 2.540, 3.175		ASTM D374	
Inherent Surface Tack	2	2			
Density (Bulk Rubber) (g/cc)	3.2	3.2		ASTM D792	
Heat Capacity (J/g-K)	0.1	0.1		ASTM EI 269	
Hardness (Bulk Rubber) (Shore 00) (4)	35	35		ASTM 2240	
Young's Modulus (psi) / (kPa) (1)	17.5	121		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)	8.0	8.0		ASTM D150	
Volume Resistivity (Ohm-meter)	I 0 <sup>10</sup>	1010		ASTM D257	
Flame Rating	V-O	V-O		U.L.94	
THERMAL					
Thermal Conductivity (W/m-K) (2)	5.0	5.0		ASTM D5470	
THERMAL PERFORMANCE vs. STR	AIN				
	Deflection (% strain)		10	20	30
Thermal Impedance (°C-in²/W) 0.040" (2) 0.35			0.30	0.26	

\* Custom thicknesses available. Prease contact your Henkel Sales Representative for more information.

Young's Modulus, calculated using 0.01 in/min. step rate of strain with a sample size of 0.79 inch<sup>2</sup> after 5 minutes of compression at 10% choice and a long thickness matching.

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.

Minimum value at 20 mil.

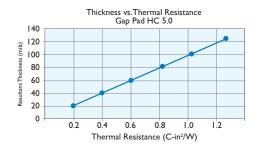
Thirty second delay value on Shore 00 hardness scale.

#### TYPICAL APPLICATIONS INCLUDE

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

#### **CONFIGURATIONS AVAILABLE**

Sheet form and die-cut parts



PDS\_GP\_HC 5\_0616



### Disclaimer

#### Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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