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[Bergquist](#)

[GP1500R-0.010-02-0816](#)

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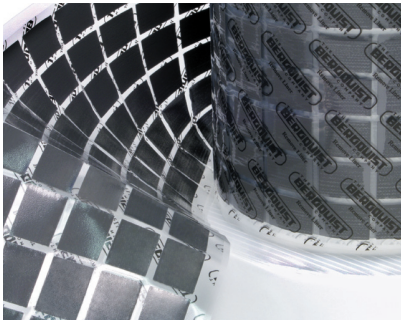
sales@integrated-circuit.com

Gap Pad® I500R

Thermally Conductive, Reinforced Gap Filling Material

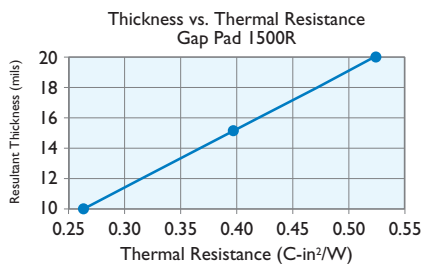
Features and Benefits

- Thermal conductivity: 1.5 W/m-K
- Fiberglass reinforced for puncture, shear and tear resistance
- Easy release construction
- Electrically isolating



Gap Pad I500R has the same highly conformable, low-modulus polymer as the standard Gap Pad I500. The fiberglass reinforcement allows for easy material handling and enhances puncture, shear and tear resistance. The natural tack on both sides of the material allows for good compliance to mating surfaces of components, further reducing thermal resistance.

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



TYPICAL PROPERTIES OF GAP PAD I500R				
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD	
Color	Black	Black	Visual	
Reinforcement Carrier	Fiberglass	Fiberglass	—	
Thickness (inch) / (mm)	0.010 to 0.020	0.254 to 0.508	ASTM D374	
Inherent Surface Tack (1 side)	2	2	—	
Density (Bulk Rubber) (g/cc)	2.1	2.1	ASTM D792	
Heat Capacity (J/g-K)	1.3	1.3	ASTM E1269	
Hardness (Bulk Rubber) (Shore 00) (1)	40	40	ASTM D2240	
Young's Modulus (psi) / (kPa) (2)	45	310	ASTM D575	
Continuous Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—	
ELECTRICAL				
Dielectric Breakdown Voltage (Vac)	>6000	>6000	ASTM D149	
Dielectric Constant (1000 Hz)	6.0	6.0	ASTM D150	
Volume Resistivity (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257	
Flame Rating	V-O	V-O	UL 94	
THERMAL				
Thermal Conductivity (W/m-K)	1.5	1.5	ASTM D5470	
THERMAL PERFORMANCE vs. STRAIN				
	Deflection (% strain)	10	20	30
	Thermal Impedance (°C-in ² /W) 0.020" (3)	1.07	0.88	0.82

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 inch². 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 Include:

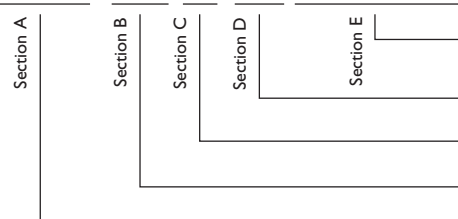
- Telecommunications
- Computer and peripherals
- Power conversion
- RDRAM™ memory modules / chip scale packages
- Areas where heat needs to be transferred to a frame chassis or other type of heat spreader

Configurations Available:

- Sheet form, die-cut parts, and roll form (converted or unconverted)

Building a Part Number

GP1500R - 0.020 - 02 - 00 - ACME10256 Rev. A



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

02 = Natural tack, both sides

Standard thicknesses available: 0.010", 0.015", 0.020"

GP1500R = Gap Pad I500R Material

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