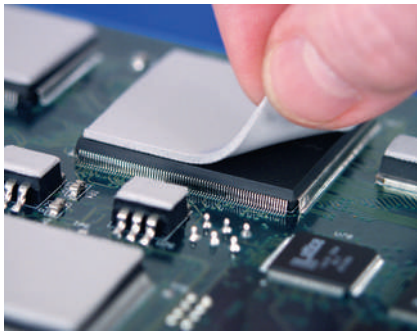
Gap Pad® 2000S40

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

Features and Benefits

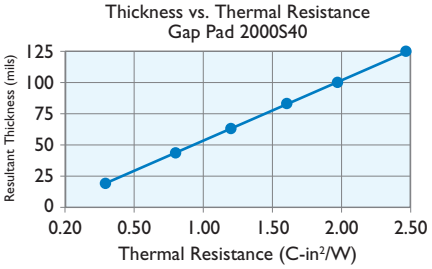
- Thermal conductivity: 2.0 W/m-K
- Low "S-Class" thermal resistance at very low pressures
- Highly conformable, low hardness
- Designed for low-stress applications
- Fiberglass reinforced for puncture, shear and tear resistance



Gap Pad 2000S40 is recommended for low-stress applications that require a mid to high thermally conductive interface material. The highly conformable nature of the material allows the pad to fill in air voids and air gaps between PC boards and heat sinks or metal chassis with stepped topography, rough surfaces and high stack-up tolerances.

Gap Pad 2000S40 is offered with inherent natural tack on both sides of the material allowing for stick-in-place characteristics during application assembly. The material is supplied with protective liners on both sides. The top side has reduced tack for ease of handling.

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



TYPICAL PROPERTIES OF GAP PAD 2000S40

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Gray	Gray	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)	2	2	—
Density (Bulk Rubber) (g/cc)	2.9	2.9	ASTM D792
Heat Capacity (J/g-K)	0.6	0.6	ASTM E1269
Hardness (Bulk Rubber) (Shore 00) (1)	30	30	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)	>5000	>5000	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	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K)	2.0	2.0	ASTM D5470

THERMAL PERFORMANCE vs. STRAIN			
Deflection (% strain)	10	20	30
Thermal Impedance (°C-in²/W) 0.040" (3)	0.97	0.89	0.80

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:

- Power electronics DC/DC; 1/4, 1/2, full bricks, etc.
- Mass storage devices
- Graphics card/processor/ASIC
- Wireline/wireless communications hardware
- Automotive engine/transmission controls

Configurations Available:

- Sheet form and die-cut parts

Building a Part Number

GP2000S40 – 0.020 – 02 – 0816 – NA

Section A: GP2000S40 = Gap Pad 2000S40 Material

Section B: 0.020 = Standard thicknesses available: 0.020", 0.040", 0.060", 0.080", 0.100", 0.125"

Section C: 02 = Natural tack, both sides

Section D: 0816 = Standard sheet size 8" x 16", or 00 = custom configuration

Section E: NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

Standard Options

◀◀ *example*

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

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