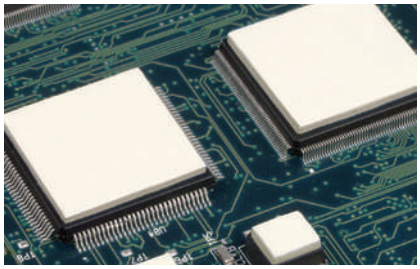
Gap Pad® 2500S20

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

Features and Benefits

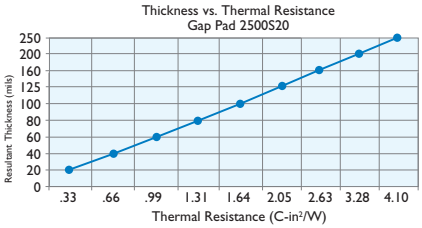
- Thermal conductivity: 2.4 W/m-K
- Low "S-Class" thermal resistance at ultra-low pressures
- Ultra conformable, "gel-like" modulus
- Designed for low-stress applications
- Fiberglass reinforced for puncture, shear and tear resistance



Gap Pad 2500S20 is a thermally conductive, reinforced material rated at a thermal conductivity of 2.4 W/m-K. The material is a filled-polymer material yielding extremely soft, elastic characteristics. The material is reinforced to provide easy handling, converting, added electrical isolation and tear resistance. Gap Pad 2500S20 is well suited for low-pressure applications that typically use fixed standoff or clip mounting. The material maintains a conformable, yet elastic nature that allows for excellent interfacing and wet-out characteristics, even to surfaces with high roughness and/or topography.

Gap Pad 2500S20 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 2500S20

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Light Yellow	Light Yellow	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	—
Thickness (inch) / (mm)	0.010 to 0.250	0.254 to 6.350	ASTM D374
Inherent Surface Tack (1 side)	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) (1)	20	20	ASTM D2240
Young's Modulus (psi) / (kPa) (2)	5	35	ASTM D575
Continuous Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—
ELECTRICAL			
Dielectric Breakdown Voltage (Vac)	>3000	>3000	ASTM D149
Dielectric Constant (1000 Hz)	6.6	6.6	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)	2.4	2.4	ASTM D5470

THERMAL PERFORMANCE vs. STRAIN			
Deflection (% strain)	10	20	30
Thermal Impedance (°C-in²/W) 0.040" (3)	0.75	0.68	0.61

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

- Between processors and heat sinks
- Between graphics chips and heat sinks
- DVD and CDROM electronics cooling
- Areas where heat needs to be transferred to a frame, chassis or other type of heat spreader

Configurations Available:

- Sheet form and die-cut parts

Building a Part Number

GP2500S20 – 0.100 – 02 – 00 – ACME 89302 Rev a

Section A: GP2500S20 = Gap Pad 2500S20 Material

Section B: Standard thicknesses available: 0.010", 0.015", 0.020", 0.040", 0.060", 0.080", 0.100", 0.125", 0.160", 0.200", 0.250"

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.

THE BERGQUIST COMPANY www.bergquistcompany.com

The Bergquist Company - North American Headquarters
18930 West 78th Street
Chanhassen, MN 55317
Phone: 800-347-4572
Fax: 952-835-0430

The Bergquist Company - European Headquarters
Netherlands
Phone: 31-35-5380684
Fax: 31-35-5380295

The Bergquist Company - Asia Headquarters
Hong Kong
Phone: 852-2690-9296
Fax: 852-2690-2344

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