

Bond-Ply® 100

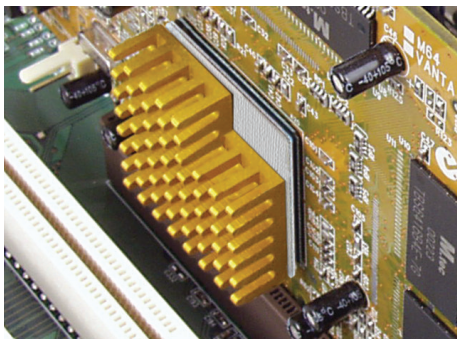
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PRODUCT DESCRIPTION

Thermally Conductive, Fiberglass Reinforced Pressure Sensitive Adhesive Tape

FEATURES AND BENEFITS

- Thermal impedance: 0.52°C-in²/W (@50 psi)
- High bond strength to a variety of surfaces
- Double-sided, pressure sensitive adhesive tape
- High performance, thermally conductive acrylic adhesive
- Can be used instead of heat-cure adhesive, screw mounting or clip mounting



Shelf Life: The double-sided, pressure sensitive adhesive used in Bond-Ply® products requires the use of dual liners to protect the surfaces from contaminants. The recommended shelf life for Bergquist Bond-Ply® 100 is 6-months at a maximum continuous storage temperature of 35°C or 3-months at a maximum continuous storage temperature of 45°C, for maintenance of controlled adhesion to the liner. The shelf life of the Bond-Ply® material, without consideration of liner adhesion (which is often not critical for manual assembly processing), is recommended at 12 months from date of manufacture at a maximum continuous storage temperature of 60°C.

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

TYPICAL PROPERTIES OF BOND-PLY 100

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD		
Color	White	White	Visual		
Reinforcement Carrier	Fiberglass	Fiberglass	—		
Thickness (inch) / (mm)	0.005, 0.008, 0.011	0.127, 0.203, 0.279	ASTM D374		
Temp. Resistance, 30 sec. (°F) / (°C)	392	200	—		
Elongation (%45° to Warp & Fill)	70	70	ASTM D412		
Tensile Strength (psi) / (MPa)	900	6	ASTM D412		
CTE (ppm)	325	325	ASTM D3386		
Glass Transition (°F) / (°C)	-22	-30	ASTM D1356		
Continuous Use Temp (°F) / (°C)	-22 to 248	-30 to 120	—		
ADHESION					
Lap Shear @ RT (psi) / (MPa)	100	0.7	ASTM D1002		
Lap Shear after 5 hr @ 100°C	200	1.4	ASTM D1002		
Lap Shear after 2 min @ 200°C	200	1.4	ASTM D1002		
Static Dead Weight Shear (°F) / (°C)	302	150	PSTC#7		
ELECTRICAL		VALUE	TEST METHOD		
Dielectric Breakdown Voltage - 0.005" (Vac)		3000	ASTM D149		
Dielectric Breakdown Voltage - 0.008" (Vac)		6000	ASTM D149		
Dielectric Breakdown Voltage - 0.011" (Vac)		8500	ASTM D149		
Flame Rating		V-O	UL94		
THERMAL					
Thermal Conductivity (W/m-K)		0.8	ASTM D5470		
THERMAL PERFORMANCE vs PRESSURE					
Initial Assembly Pressure (psi for 5 seconds)	10	25	50	100	200
TO-220 Thermal Performance (°C/W) 0.005"	5.17	4.87	4.49	4.18	4.10
TO-220 Thermal Performance (°C/W) 0.008"	5.40	5.35	5.28	5.22	5.20
TO-220 Thermal Performance (°C/W) 0.011"	6.59	6.51	6.51	6.50	6.40
Thermal Impedance (°C-in ² /W) 0.005" (1)	0.56	0.54	0.52	0.50	0.50
Thermal Impedance (°C-in ² /W) 0.008" (1)	0.82	0.80	0.78	0.77	0.75
Thermal Impedance (°C-in ² /W) 0.011" (1)	1.03	1.02	1.01	1.00	0.99
1) 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

- Mount heat sink onto BGA graphic processor or drive processor
- Mount heat spreader onto power converter PCB or onto motor control PCB

CONFIGURATIONS AVAILABLE

- Sheet form, roll form and die-cut parts

Disclaimer

Note:

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