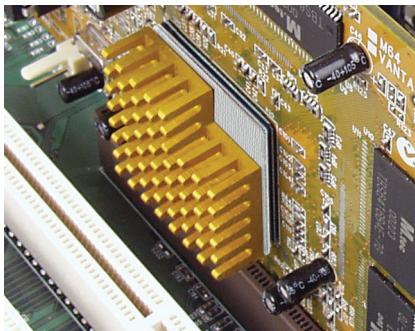


Bond-Ply® 100

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



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:

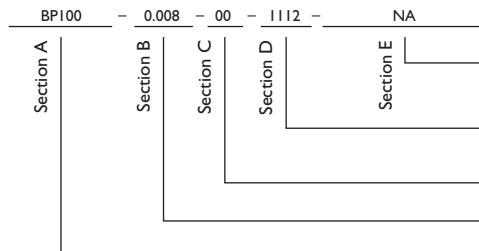
- Sheet form, roll form and die-cut parts

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. Bergquist recommends a 6-month shelf life at a maximum continuous storage temperature of 35°C or 3-month shelf life 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.

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				
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	UL.94		
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
TO-220 Thermal Performance (°C/W) 0.005"	5.17	4.87	4.49	4.18
TO-220 Thermal Performance (°C/W) 0.008"	5.40	5.35	5.28	5.22
TO-220 Thermal Performance (°C/W) 0.011"	6.59	6.51	6.51	6.50
Thermal Impedance (°C-in ² /W) 0.005" (I)	0.56	0.54	0.52	0.50
Thermal Impedance (°C-in ² /W) 0.008" (I)	0.82	0.80	0.78	0.77
Thermal Impedance (°C-in ² /W) 0.011" (I)	1.03	1.02	1.01	1.00
200				

I) 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.

Building a Part Number



Standard Options

◀ example

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

1112 = 11" x 12" sheets, 11250 = 11" x 250' rolls or 00 = custom configuration

00 = No adhesive

Standard thicknesses available: 0.005", 0.008", 0.011"

BP100 = Bond-Ply 100 Material

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



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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