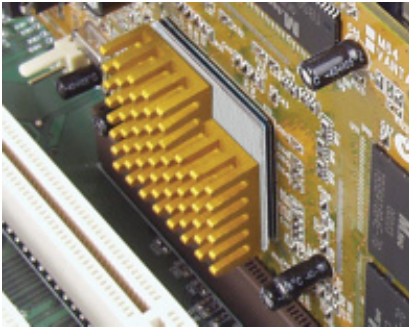


Thermally Conductive, Fiberglass Reinforced Pressure Sensitive Adhesive Tape

Features and Benefits

- Thermal impedance:
0.86°C-in²/W (@100 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:

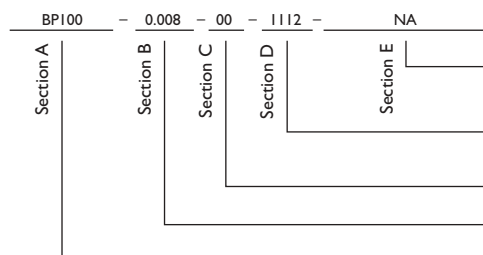
- Sheet form, roll form, and die-cut parts

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 1356			
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	U.L.94			
THERMAL						
Thermal Conductivity (W/m-K)		0.8	ASTM D5470			
THERMAL PERFORMANCE vs PRESSURE						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W) 0.005"		4.39	4.02	3.48	3.15	3.05
TO-220 Thermal Performance (°C/W) 0.008"		5.11	4.69	4.53	4.45	4.38
TO-220 Thermal Performance (°C/W) 0.011"		6.26	5.92	5.73	5.63	5.53
Thermal Impedance (°C-in²/W) 0.005" (1)		0.78	0.61	0.58	0.55	0.54
Thermal Impedance (°C-in²/W) 0.008" (1)		1.28	0.94	0.90	0.86	0.84
Thermal Impedance (°C-in²/W) 0.011" (1)		2.47	1.22	1.19	1.14	1.11
1) The ASTM D5470 (Bergquist modified) 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.

11/250 = 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.

Bond-Ply®: U.S. Patent 5,090,484 and others.



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