

# Bond-Ply® 660P

Thermally Conductive, Film Reinforced, Pressure Sensitive Adhesive Tape

## Features and Benefits

- Thermal impedance:  
0.87°C-in²/W (@50 psi)
- Highly puncture resistant Polyimide reinforcement carrier
- Double-sided pressure sensitive adhesive tape
- Provides a mechanical bond, eliminating the need for mechanical fasteners or screws

Bond-Ply® 660P is a thermally conductive, electrically insulating, double sided pressure sensitive adhesive tape. The tape consists of a high performance, thermally conductive acrylic adhesive coated on both sides of a Polyimide film. Use Bond-Ply® 660P in applications to replace mechanical fasteners or screws.

## Typical Applications Include:

- Heat sink onto BGA graphic processor
- Heat sink onto drive processor
- Heat spreader onto power converter PCB
- Heat spreader onto motor control PCB

## Configurations Available:

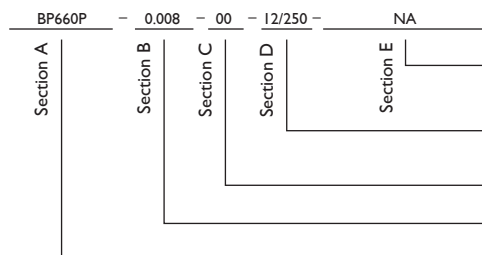
- Roll form and die-cut parts

The material as delivered will include a continuous base liner with differential release properties to allow for simplicity in roll packaging and application assembly.

TYPICAL PROPERTIES OF BOND-PLY 660P						
PROPERTY		IMPERIAL VALUE		METRIC VALUE		TEST METHOD
Color		Light Brown		Light Brown		Visual
Reinforcement Carrier		Polyimide Film		Polyimide Film		—
Thickness (inch) / (mm)		0.008		0.203		ASTM D374
Glass Transition (°F) / (°C)		-22		-30		ASTM E1356
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
ELECTRICAL				VALUE		TEST METHOD
Dielectric Breakdown Voltage (VAC)				6000		ASTM D149
Flame Rating				V-O		UL94
THERMAL						
Thermal Conductivity (W/m-K)				0.4		ASTM D5470
THERMAL PERFORMANCE vs PRESSURE						
Initial Assembly Pressure (psi for 5 seconds)		10	25	50	100	200
TO-220 Thermal Performance (°C/W)		5.48	5.47	5.15	5.05	5.00
Thermal Impedance (°C-in²/W) (1)		0.83	0.82	0.81	0.80	0.79
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.						

**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.

## Building a Part Number



Note: To build a part number, visit our website at [www.bergquistcompany.com](http://www.bergquistcompany.com).

## Standard Options

◀ example

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

1212 = 12" x 12" Sheets, 12/250 = 12" x 250' rolls or 00 = custom configuration

00 = No adhesive

Standard thicknesses available: 0.008"

BP660P = Bond-Ply 660P Material