

## **Excellent Integrated System Limited**

Stocking Distributor

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Bergquist B660B-0.0055-00-1112-NA

For any questions, you can email us directly: <u>sales@integrated-circuit.com</u>



# Bond-Ply<sup>®</sup> 660B

#### Features and Benefits

- · Designed to replace mechanical fasteners or screws
- For applications that require electrical isolation
- Double-sided pressure sensitive adhesive tape



Bond-Ply 660B 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 PEN film. Use Bond-Ply 660B in applications to replace mechanical fasteners or screws.

#### **Typical Applications** Include:

- Mount heat sink onto BGA graphic processor
- · Mount heat sink onto drive processor
- Mount heat spreader onto power converter PCB
- Mount 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 simplicity in roll packaging and application assembly.

#### Silicone-Free Formulation, High Performance Thermally Conductive Material

TYPICAL PROPERTIES OF BOND-PLY 660B						
PROPERTY	IMPERIAL VALUE		METRIC VALUE		TEST METHOD	
Color	White		White		Visual	
Reinforcement Carrier	PEN Film		PEN Film		—	
Thickness (inch) / (mm)	0.0055		0.14		ASTM D374	
Temp. Resistance, 30 sec. (°F) / (°C)	392		200		—	
Elongation (%)	40		40		ASTM D412	
Tensile Strength (psi) / (MPa)	30000		210		ASTM D412	
CTE (ppm)	250		250		ASTM D3386	
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	
Static Dead Weight Shear (°F) / (°C)	302		150		PSTC#7	
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	6000		6000		ASTM D149	
Flame Rating	V-O		V-O		U.L.94	
THERMAL						
Thermal Conductivity (W/m-K)	0.4		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)		5.28	5.10	4.95	4.80	4.51
Thermal Impedance (°C-in²/W) (1)		0.59	0.59	0.58	0.58	0.58
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

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**



### 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, 11/250 = 11" x 250' rolls, or 00 = custom configuration 00 = No adhesive

Standard thicknesses available: 0.0055"

BP660B = Bond-Ply 660B Material

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

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

#### EERCOVIST

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