



**Manufacturers of  
Precision Board**

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Product Data Sheet

# Precision Board Plus™

## PBLT-48

### DESCRIPTION & APPLICATION:

PBLT-48 is a rigid, high density urethane, (HDU) Tooling/Modeling board designed for Prototype Machining, Pattern Making, Thermoforming, Prepreg Composite Layup Tooling, Vacuum Form Tooling, Tool Proofing, Master Model Making, Indoor & Outdoor Signage. PBLT Plus is made in USA.

Precision Board Plus PBLT is formulated with eco-friendly, "Green" urethane components. The new Plus formulations have achieved a Certified "Carbon Balance" of 3 to 1 and a Certified "Rapidly Renewable Green Resource Content" of 18.9%. Assists meeting LEED requirements for obtaining USGBC and ICC 700 building credits. PBLT Plus has a tighter cell structure, which now results in more chips and less dust during cutting and machining.

Precision Board Plus **does not contain: CFC's or VOC's** See MSDS for details

Precision Board Plus PBLT comes in standard sizes of 20"x60", 24"x60", 30"x80", 4'x8', 4'x10', 5'x8' and 5'x10'. Thickness ranges from 1/2" to 24". Other special sizes and custom bonded shapes are available upon request. Standard densities are available in 4, 6, 8, 10, 12, 15, 18, 20, 30, 34, 40, 48 and 60 pounds per cubic foot (pcf). Other special densities are available.

Precision Board Plus PBLT is **non-abrasive** and can be machined and cut with HSS cutters, or any standard cutting tool. PBLT Plus does not outgas or affect prepreg resin cure. **See FAQ for important oven/autoclave ramping procedures and other pertinent information.**

PBLT can be bonded to itself or most other substrates using Coastal Enterprises' single component urethane adhesives: PB Bond-240 and PB Fast Set, or EP-76, two part, epoxy adhesive.

### PHYSICAL PROPERTIES:

|  |                              |                                      |
|--|------------------------------|--------------------------------------|
| Density  | ASTM D-1623                  | 48 lbs/Cubic Foot                    |
| Compressive Strength   | ASTM D-1621                  | 4,110 psi                            |
| Compressive Modulus  | ASTM D-1621                  | 67,406 psi                           |
| Tensile Strength   | ASTM D-1623                  | 1,910 psi                            |
| Tensile Modulus  | ASTM D-1623                  | 38,550 psi                           |
| Shear Strength   | ASTM C-273                   | 538 psi                              |
| Shear Modulus  | ASTM C-273                   | 5,395 psi                            |
| Flexural Strength Method 1A  | ASTM D-790                   | 3,079 psi                            |
| Flexural Modulus Method 1 A  | ASTM D-790                   | 191,180 psi                          |
| Hardness   | Shore D                      | 62                                   |
| Elongation   |                              | 5.9%                                 |
| Dimensional Stability  | ASTM D-2126                  | 1.2% Max.                            |
| Water Absorption   | ASTM D-2842                  | 0.01% by Vol. after 96 hrs.          |
| Closed Cell Content  | ASTM D-2856                  | 97%                                  |
| "K" Value Insulation Factor  | ASTM C-177                   | 1.351                                |
| Impact Resistance  | °F 4.6 oz. 1" Dia. 9/6" drop | No cracking observed                 |
| Freeze Thaw  | ASTM D-2126, 25 Cycles       | No disbonding or distortion occurred |
| Mold and Mildew Resistance   | ASTM D-3273                  | Does not support growth              |
| Dielectric Constant  | ASTM D-1678                  | 1.3                                  |
| Maximum Service Temperature  | Dry                          | 200° F                               |
| Coefficient of Thermal Expansion (CTE)                                 |                              | 25 X 10 <sup>-6</sup> °F             |
| Specific Heat @ 77°F   | ASTM E-1269                  | 0.353                                |
| Glass Transition   | DMA                          | 215°F                                |
| Precision Board does not contain: Chlorinated Fluorocarbons (CFC's) or |                              | Volatile Organic Compounds (VOC's)   |
| Flammability Tests:  | FAR 25.853 Vertical Burn     | Pass                                 |
|  | MIL P 26514 Burn Test        | Pass                                 |
|  | ASTM D-1692-74 Burn Test     | Pass                                 |
|  | ASTM D635-06                 | Pass                                 |

Follow heat temperature ramping of 1°F up per minute & 2°F down per minute. See FAQ for additional data.

**Any Questions please contact Coastal Enterprises Company**

**(800) 845-0745**

**[www.PrecisionBoard.com](http://www.PrecisionBoard.com)**

**WARRANTY:** All recommendations for product use have been derived from experience and test data believed to be reliable. We warrant and guarantee the uniformity of our products within manufacturing tolerance. However, since the use of our products is beyond our direct control, they are furnished upon the condition that each party shall make his/her own tests to determine their suitability for his/her particular purpose. Except as stated herein, Coastal Enterprises Company makes no warranty or guarantee, expressed or implied, and disclaims all responsibility for results obtained, nor assumes any liability for any damages, whether arising out of negligence or breach of guarantee and is hereby expressly limited to replacement of product only. For additional information on product handling, please refer to Precision Board Plus MSDS.