



American Plastic Lumber's structural custom engineered extruded shapes are manufactured from blends of HDPE (high density polyethylene) resins. Additional proprietary additives and strengthening reinforcements are compounded into each product.

FEATURES

Manufactured to exacting specifications, plastic lumber is essentially maintenance free due to exceptional resistance to moisture, fading, insects, splintering, warping and other common outcomes from environmental stress that one observes with common wood and wood fiber / plastic composite products.

Requires no waterproofing, staining or other common protective maintenance other than the occasional washing with soap and water to remove dirt and debris if desired.

Very color stable due to UV pigment systems that resist breakdown from prolonged sun and weather exposure. It is possible that the material may fade very slightly over the entire service life of the product, unlike most wood and wood / plastic composite products that quickly transcend to a weathered gray color due to the wood fiber content inherent in the products.

There are over one hundred custom shapes available to meet your requirements or we can customize a unique shape to meet your needs.

The standard color for lumber is medium gray. Special order colors in the popular wood tones are available such as: Cedar, Sand, Gray, Redwood, Mahogany, Light Oak, Tudor Brown as examples. Custom colors can be matched and made available. It is possible that the material may fade very slightly over the entire service life of the product. However, most wood and wood composite products will fade quickly to a weathered gray color due to the wood fiber content inherent in the products

BASIC USES

Structural plastic lumber products perform very well for exterior applications where reinforcing properties, resistance to weathering and minimal maintenance are required along with maintaining appearance such as color stability and surface finish over the useful service life.

Can be used in municipal and commercial applications and is well suited for marine, boardwalks, dock & deck planks to name just a few fresh and salt water shoreline applications where strength, stiffness and low maintenance are required.

WARRANTY

The manufacturer of the structural plastic lumber product offers a limited warranty that this product will not rot, splinter, decay or suffer structural damage directly from termites & fungal decay under normal use. American Plastic Lumber, Inc does not recommend or approve this product for all end use applications. The appropriate national and local code authorities should be consulted for safety, suitability and applicability for intended use prior to purchasing product.

This guideline and summary is intended to provide the distributor, installer and end user with basic guidelines and technical specifications for designing and properly installing the plastic lumber products. However, the installer and/or purchaser of any plastic lumber product is solely responsible for interpreting specific job conditions, and determining the engineering design and suitability of end use and application of any plastic lumber product. Adherence to applicable building and safety codes for specific locations and applications of this product are the sole responsibility of the installer and/or purchaser. In no event shall the manufacturer of the plastic lumber decking products or American Plastic Lumber, Inc be liable for labor, installation, reinstallation or for any indirect, punitive, exemplary or consequential damages of any kind whatsoever from the provision of this information.

Mechanical Properties	Test Method	Average Value
Specific Gravity	ASTM D6111	.0216 - .030
Water Absorption	ASTM D570-98	< 0.1
Modulus of Elasticity	ASTM D6109-05	221,260psi*
Secant Modulus @ 1% Strain	ASTM D6109-05	137,861psi
Stress @ 3% Strain Flexural Property	ASTM D6109-05	2,114psi
Screw withdrawal (lbs/inch of depth)	ASTM D6117-97	703 lbs
Coef. Linear expansion in/in/°F	ASTM D6341-98	0.0000281
<i>*Stiffness and strengths can be increased by adjusting reinforcement and processing conditions ~ Lower density may occur in larger cross sections</i>		

SUITABILITY AND LIMITATIONS

These products have greater impact resistance than wood but conversely less rigidity and therefore prior to use a thorough design engineering study must be performed to determine the suitability of structural lumber in any structural or load bearing application.

Fabrication is similar to wood and normal woodworking tools can be used. One should be advised that by transforming the product by drilling holes and routing edges the integrity and strength of the part can be altered. Eye protective wear, dusk mask, gloves and normal safety precautions must be used when handling and fabricating the product. (See MSDS sheet for more details)

Inherent in plastic lumber products, you will observe a greater coefficient of thermal expansion than stiffer wood products. Therefore when designing your application an accommodation must be made to properly allow for expected expansion and contraction over the length of the product.

Static electricity is a naturally occurring phenomenon to all resin based products. On extremely dry days there is the potential to experience a small static shock if you walk across a plastic lumber product and touch a conducting surface such as a metal fixture. This is comparable to walking across your carpet and receiving a static shock when you touch the door handle. We do not warranty against static electricity as it is a natural occurring phenomenon and is not a manufacturing defect.

During winter conditions, you might find any deck surface made from plastic lumber to be slippery in snow, wet and frost conditions. Unlike most other surfaces you can easily spread rock salt or calcium chloride to restore decent traction and melt the frost or ice layer with no harmful effect to the plastic products.