



PERENNIAL WOOD™

Natural Wood Modified with TruLast™ Technology

Imagine a wood that offers all the character, beauty, and appeal of real wood while minimizing the expected drawbacks of shrinking, swelling, bowing, or cupping. Imagine a wood that is warranted to provide a physical barrier protecting against rot, decay, and movement for 25 years. Imagine the potential. Imagine Perennial Wood, real wood made to endure.

Perennial Wood is modified with our proprietary TruLast Technology, which permanently transforms wood's cellular structure throughout by using heat, pressure, and an organic compound to replace water-loving (hydrophilic) groups in the wood's cells with water-hating (hydrophobic) groups. The resulting Perennial Wood is three times more resistant to shrinking and swelling and has 25% greater surface hardness than unmodified wood without compromising the natural wood appearance.

SIZES

Perennial Wood is available in 8, 10, 12, and 16 foot lengths in the following nominal-size boards and lumber:

- ▶ 1 x 4, 1 x 6, 1 x 8, 1 x 10, 1 x 12
- ▶ 5/4 x 4, 5/4 x 6, 5/4 x 8, 5/4 x 10, 5/4 x 12
- ▶ 2 x 4, 2 x 6, 2 x 8, 2 x 10, 2 x 12
- ▶ 6/4 x 4, 6/4 x 6
- ▶ 8/4 x 4, 8/4 x 6
- ▶ 10/4 x 4, 10/4 x 6



SUSTAINABLE DESIGN BENEFITS

Perennial Wood contributes to the sustainability of your design projects.

- ▶ Perennial Wood is harvested from U.S. Southern pine, a renewable resource.
- ▶ Perennial Wood is manufactured in the U.S., lessening the environmental impact of product transportation.
- ▶ Perennial Wood products last longer than unmodified wood and therefore need to be replaced less often, reducing material disposal.
- ▶ TruLast Technology modifies the wood with heat, pressure, and an organic compound, leaving no toxic substances in the wood.

RELATED LEED CREDITS

- ▶ **MR Credit 5, all rating systems: Regional Materials:** For projects within 500 miles of the Perennial Wood processing facility in Thomasville, N.C. (factory finished or uncoated).
- ▶ **Homes ID2: Durability Management Process, LEED for Homes:** The modification process leaves no toxic substances in the wood, making it a superior option for trim, doors, and siding, as well as decking and flooring.
- ▶ **Pilot Credit 2: PBT Source Reduction: Dioxins and halogenated organic compounds:** Uncoated Perennial Wood does not contain halogenated or brominated compounds.
- ▶ **Pilot Credit 11: Chemical Avoidance in Building Materials:** Uncoated Perennial Wood does not contain halogenated flame retardants or phthalates.



Permanently modified, providing a physical barrier throughout against rot and decay.



Three times more stable than untreated wood, minimizing warping, bowing, and cupping.



25% more surface hardness than raw wood once modified with TruLast Technology.



Workability and machinability of wood, with standard wood working tools.



25-year limited warranty on decking and porch flooring products against rot, decay, and movement.



Harvested and made in the U.S.A.

TOPIC	DESCRIPTION	METHOD
Material characteristics	Produced from #1 Prime graded Southern pine, modified with TruLast Technology. Lumber is supplied sanded-four-sides (S4S); deck boards are radius-edged.	
Standard lengths	8', 10', 12', 16'	
Density	0.50-0.72 g/cc	Acetylated, Dry
Shrinkage, tangential	2%	From 20% EMC to 6% EMC
Shrinkage, radial	1%	From 20% EMC to 6% EMC
Shrinkage, length	0.06%	From Soaked to 6% EMC
Anti-swell efficiency, ASE	60%-70% (compared to unmodified wood)	ASTM 4446 basis
Durability	Suitable for exterior above ground applications	
Equilibrium moisture content	4%-6%	ASTM D4442
Fire rating	Class C Rating	ASTM E84
Bending strength, modulus of rupture (MOR)	15,350 psi (106 MPa)	ASTM D4761
Bending stiffness, modulus of elasticity (MOE)	Not less than 1,700,000 psi (11 700 MPa)	ASTM D4761
Thermal conductivity	0.102 W/mK	ASTM C177
Janka hardness (side)	780-970 lb @ 5% moisture	ASTM D143
Preservative retention level	Greater than 17% bound acetyl	
Fungal decay protection	Less than 10% weight loss	AWPA E10
Termite resistance	Perennial Wood provides a physical barrier to termites, resulting in less than 2% weight loss with <i>Reticulitermes</i> termites.	AWPA E1
Machinability	Cuts similarly to raw Southern pine or to a hardwood species. No special tools required.	
Gluing	Use PRF, EPI, PU, or epoxy adhesives. Evaluate in end-use conditions.	
Finishing	Perennial Wood decking is available factory finished. If applying field coating, no weathering is required prior to application. Can be coated with traditional wood coating systems. Improved performance has been noted in some opaque coating systems because of the greater stability of Perennial Wood than unmodified wood.	
Availability	Perennial Wood is available throughout the Northeast U.S. through a network of local dealers and retail building supply outlets. Visit PerennialWood.com to locate nearby suppliers.	
Maintenance	Following application of finishes, Perennial Wood requires no maintenance beyond normal occasional light washing to remove undesired soiling.	
Fastening	Stainless steel fasteners are required. Concealed deck fastening systems may also be used in accordance with their manufacturer's instructions. Installers should comply with Perennial Wood installation instructions, AF&PA DCA6 and the fastener schedule found in applicable building codes.	
Other technical information	Section 06 73 11 WOOD PATIO DECKING guide specification for Perennial Wood in CSI 3-part format, and detailed product literature, test reports, installation instructions, and information on special applications are available from Eastman.	

