



Ambara®
Technical Data Sheet



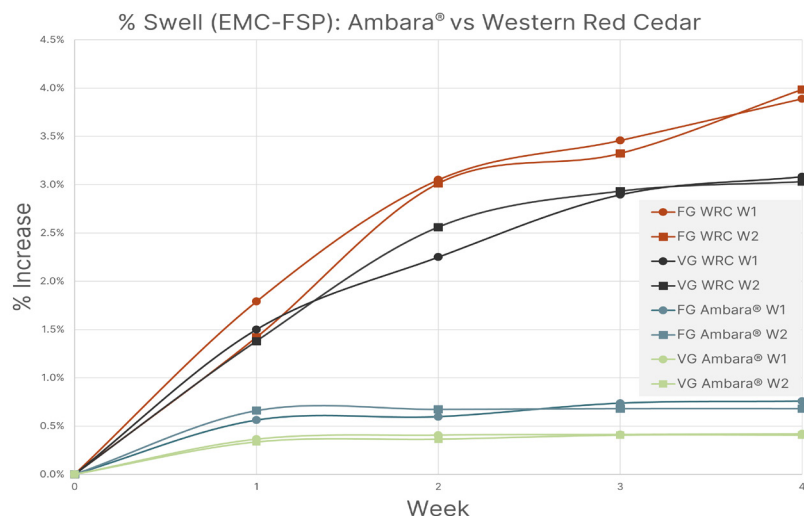
DIMENSIONAL STABILITY

ASTM D1037

<1% Tang. Rad. (EMC-FSP)

Flat grain (FG) and vertical grain (VG) Ambara® vastly outperformed western redcedar (WRC) in a month-long dimensional stability study where specimens were submerged fully in water, testing them to their extreme.

FG and VG Ambara® swelled significantly less than 1% while WRC swelled up to 4%



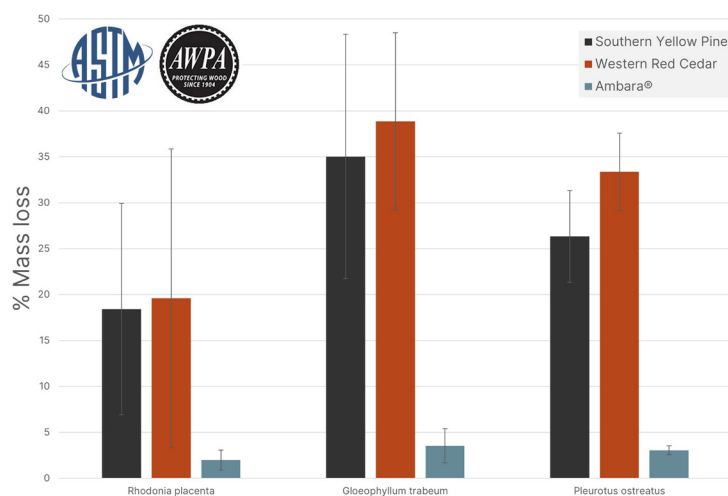
BIOLOGICAL DURABILITY

ASTM D1413/AWPA E10

Resistance to Test Fungus: Highly Resistant

ASTM (American Society of Testing and Materials) and AWPA (American Wood Protection Association) testing conducted at Oregon State University's Wood Science & Engineering Department showed that Ambara® vastly outperformed western red cedar, which is also recognized as highly durable.

ASTM D1413 is equivalent to the AWPA Standard E10, soil-block decay test. This test is a laboratory procedure that evaluates wood preservatives or treatments by exposing wood blocks to decay fungi in a moist soil environment.



PHYSICAL & MECHANICAL PROPERTIES

SPECIES: Triplochiton scleroxylon

GRADE: A & Btr Clear

JANKA: 285 Lbf

DENSITY: 320 kg/m³

FASTENING: 304, 316 SS

ADHESION: MUF, PU, STP

FINISHING: Unfinished, Oil/Water-based paints and stains

PHOTOSENSITIVE: Yes

COLOR: Consistent caramel to amber when modified

TEXTURE: Medium

LUSTER: Medium High

THERMAL MODIFICATION LEVEL: Thermo S, Closed System

THERMAL CONDUCTIVITY, INSULATION TS EN 12667: 0.099

FIRE RATING: WUI Compliant, CSFM-12-7A-1



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AMBARA VS. CONVENTIONAL SOFTWOODS

<i>Property</i>	<i>Ambara®</i>	<i>Clear Cedar (WRC)</i>	<i>STK Cedar (WRC)</i>	<i>Clear Douglas-fir (FOHC)</i>
<i>Stability (Overall)</i>	Highest. Thermally modified for "ultimate stability."	High. Known for its low shrinkage.	High. Same as clear cedar, though knots can cause minor local variations.	Good. Higher shrinkage than Cedar or Ambara.
<i>Radial Shrinkage</i>	< 1.0%	2.4%	2.4%	4.5%
<i>Tangential Shrinkage</i>	< 1.0%	5.0%	5.0%	7.3%
<i>Rot & Decay Resistance</i>	**Class 1-2 (Very Durable) *	**Class 2 (Durable)**	**Class 2 (Durable)**	Moderately Durable
<i>Hardness (Janka)</i>	285 lbf	350 lbf	350 lbf	620 lbf
<i>Density (kg/m³)</i>	320 kg/m ³	410 kg/m ³	410 kg/m ³	530 kg/m ³
<i>Cost</i>	Cost-Effective. Positioned as a cost-effective alternative to Clear Cedar.	Highest.	Moderate. Less expensive than Clear Cedar due to knots.	Premium. A high-quality structural and appearance-grade wood.