# Ambara®
# Technical Data Sheet

Nova USA Wood Products
3821 24th Ave. Forest Grove, OR. 97116
(503) 419-6407

@NovaUSAWood
www.novausawood.com

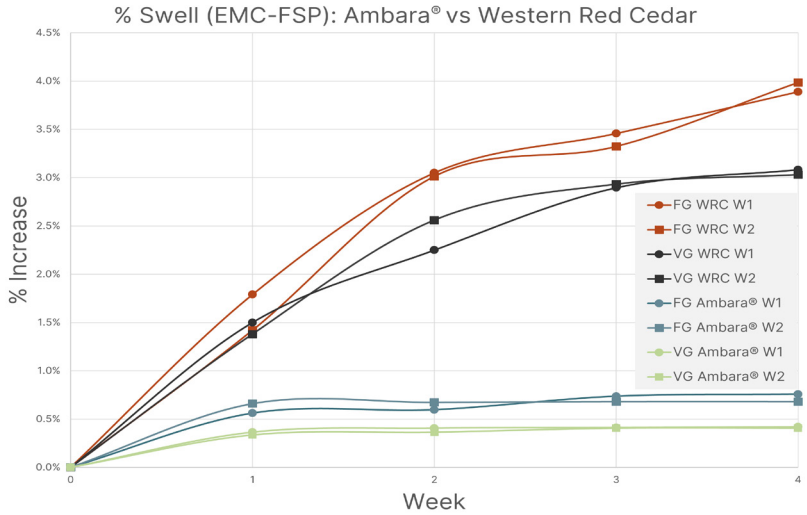
## DIMENSIONAL STABILITY

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%



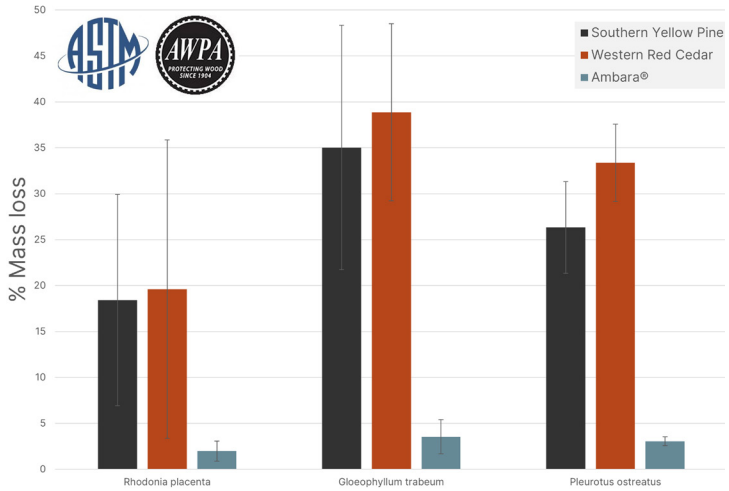

## BIOLOGICAL DURABILITY

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/m$^3$
**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


NOVA

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## AMBARA VS. CONVENTIONAL SOFTWOODS

| *Property* | *Ambara®* | *Clear Cedar (WRC)* | *STK Cedar (WRC)* | *Clear Douglas-fir (FOHC)* |
|---|---|---|---|---|
| *Stability (Overall)* | 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. |
| *Radial Shrinkage* | < 1.0% | 2.4% | 2.4% | 4.5% |
| *Tangential Shrinkage* | < 1.0% | 5.0% | 5.0% | 7.3% |
| *Rot & Decay Resistance* | **Class 1-2 (Very Durable) * | **Class 2 (Durable)** | **Class 2 (Durable)** | Moderately Durable |
| *Hardness (Janka)* | 285 lbf | 350 lbf | 350 lbf | 620 lbf |
| *Density ($kg/m^3$)* | 320 $kg/m^3$ | 410 $kg/m^3$ | 410 $kg/m^3$ | 530 $kg/m^3$ |
| *Cost* | 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. |