

Lunawood TMT Description

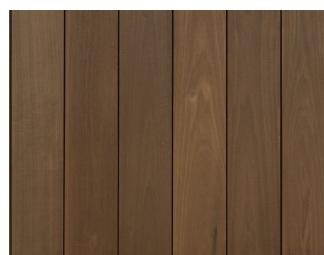
– North American Hardwoods

Essential characteristics	White Ash (<i>Fraxinus americana</i>)	Yellow Poplar (<i>Liriodendron tulipifera</i>)	Harmonized standards
Density	630 kg/m ³ 39.33lbs/ft ³ *	490 kg/m ³ 30.59lbs/ft ³ *	SFS-EN 317
Screw Traction Resistance	2,080 N End Grain: 1,960 N	1,250 N End Grain: 650 N	SFS-EN 1382
Thermal Conductivity	0.15 W/mK	0.13 W/mK	EN ISO 10456
Durability Class	Class 1	Class 2-3	EN 350-1
Use Class	Class 3	Class 3	EN 335
Wood Movement Potential	Tangential: 2.7% Radial: 2.2%	Tangential: 2.3% Radial: 1.8%	SFS-EN 317
Janka Hardness	7,556 N 1,698.66 lbf* 770.49 kgf*	2,812 N 632.16 lbf* 286.74 kgf*	ASTM D143-94

* calculated with unit conversion from original test results

THERMAL MODIFICATION

Lunawood TMT (thermally modified timber) Hardwoods are suitable for interior and exterior applications without the need for additional chemical preservatives. Our thermal modification processes enhance our North American Hardwood's aesthetic and performance properties, caramelizing the material to warm brown through-body tones while significantly improving durability and dimensional stability.



TMT Yellow Poplar



TMT White Ash

DIMENSIONAL STABILITY

The lowered equilibrium moisture content of TMT Hardwoods increases their dimensional stability, allowing the material to retain its shape far better than untreated wood. This outstanding dimensional stability allows Lunawood products to be successfully used in all climates and environmental conditions, indoors and outdoors.

USE CLASS

Lunawood TMT Hardwood products are suitable for Use Class 3 applications, "situations in which the wood is above ground and exposed to the weather (particularly rain)" including cladding façade, rainscreen, decking and many other exterior applications. TMT Hardwoods are not recommended for use in direct ground contact applications.

DURABILITY

Lunawood Thermally Modified White Ash is classified as durability class 1 "very durable", while Thermally Modified Yellow Poplar is classified as durability class 2-3 "durable-moderately durable". Durability is consistent throughout the piece regardless of cutting or machining.

TERMITE RESISTANCE

Lunawood TMT Hardwoods are not termite resistant. Termite deterrence strategies may work in conjunction with TMT properties, but as always, field testing in discreet locations is recommended.

NON-TOXIC

Lunawood TMT Hardwoods are pure organic material produced using only natural methods- heat and steam- without additional chemicals.

LEACHING

Minor release of the material's natural color pigment is possible during heavy rains early in the product's lifecycle and in humid spaces like saunas and spas.

SCENT

Lunawood TMT Hardwoods have a characteristic elegant scent. This familiar aroma emerges from the caramelized wood and evokes the sensations of freshly roasted coffee beans, slowly smoked delicacies, and exquisite spirits aged in flame-treated barrels.

ACOUSTIC PROPERTIES

Lunawood TMT Hardwood walls, ceilings, floors, and other interior elements naturally dampen noise acting as soft, echo-reducing breaks in the space. The porous wood surface does not reflect sound in the same way as harder and artificial materials. The use of battens or Lunawood 3D profiles will further reduce ambient noise potential in the space.

FIRE RATING

Lunawood TMT Hardwood products are fire rated to Class B, in accordance with ASTM E84.

MACHINEABILITY

Processing will not affect the performance properties of Lunawood TMT Hardwoods as the modification occurs through-body. Cut or machine using best practices for dense hardwoods, including sharp tooling and use of PPE.

INSTALLATION

For installation information please refer to the Lunawood Installation Guide. As with most hardwood cladding products, pre-drilling and high quality stainless steel screws will be paramount for best project outcomes.

GLUING

Gluing Lunawood TMT Hardwoods is possible, however the gluing and compression time may be 4-6 times longer than unmodified wood. Polyurethane based glues give the best performance outcomes according to test results.

SURFACE COATINGS

Linseed Oil is not suitable for Lunawood TMT Hardwoods because it enables fungal growth. Surface coatings should be applied in alignment with manufacturer guidance and will be necessary only on exposed faces and edges. Both ends should always be sealed.

MAINTENANCE

Lunawood TMT Hardwoods are durable and do not require maintenance, however, regular inspection and cleaning with fresh water and a soft bristle brush will help prevent and/or diagnose possible staining or other visual anomalies. Any applied surface coatings should be maintained in alignment with manufacturer recommendations.

WEAR AND WEATHERING

Like all timber products, Lunawood TMT Hardwoods will go grey upon exposure to UV and moisture, and in time may show some fine cracks or splits on the surface. The greying effect will be visible in a relatively short period of time, 3 to 6 months after installation (see examples below). If maintaining the original color is desired, applying a UV-protected and color pigmented wood coating may be necessary. This surface treatment should be renewed as necessary depending on the climate, amount of usage, degree of exposure to UV-light, and in line with manufacturer recommendations.

TRANSPORTATION AND STORAGE

Lunawood TMT Hardwoods should be carefully transported and stored horizontally in a manner consistent with other high-quality decorative wood materials. Store material on bearers at least 3" off the ground.

Lunawood TMT Hardwood products and accessories must be kept clean, dry, under cover and out of the weather. Avoid exposure to UV-light as the material will begin to grey. Store Lunawood in its original packaging or completely and tightly covered under a UV-protective wrap during installation phase to avoid greying of the surface and the formation of shade differences. If fully protected storage conditions are not available, keep the material protected from weather and allow for ample airflow to mitigate trapped humidity.

HANDLING

Extra care must be taken during handling and installation to maintain the aesthetic consistency of the boards. Sorting and transfer should be done with support from both ends or the middle. If visible dents or scratches develop during handling, the through-body color modification allows surfaces to be sanded exposing fresh, tonally comparable wood.

WASTE DISPOSAL

Lunawood TMT Hardwood off-cuts can be disposed of in the same manner as untreated wood, including burning.