

RIZOME

Engineered Bamboo Lumber

2020 PRODUCT DEFINITION

STRENGTH • FIRE RESISTANCE • SUSTAINABILITY

Table of Contents

RIZOME Process _____	3
Technical Specifications _____	4
Products _____	5
Sustainability _____	8

RIZOME Process

We're on a mission to sequester carbon and develop bamboo into a primary global construction material

The RIZOME Process

We sustainably source our giant bamboo from a diverse network of indigenous communities and farmers in the Philippines. Each pole is split and planed into a precise S4S dimensional slat, and then pressure-treated with borate for longevity and fire resistance. We then laminate the slats into single-layer edge-glued panels and custom layups. RIZOME is the first company to apply modern lumber manufacturing technology and data-driven processes to ensure a reliable product supply chain for large-scale construction projects. In 2021, we will expand our harvest and manufacturing footprint to Florida and Indonesia to provide even greater supply chain reliability and increased volume to meet customer demand.

RIZOME History

RIZOME is the leading global innovator in bamboo engineered lumber. RIZOME and its sister companies have been at the forefront of climate-positive bamboo construction for 25 years, pioneering the use of bamboo in over 500 US residential developments and achieving the first building code certification for structural bamboo through ICC.



Technical Specifications

Dendrocalamus asper (Mindanao)

Fire Rating ASTM-E84: 25 (Class A)	vs.	90 (Class C)	for Douglas fir
MOE: 3.7 million psi	vs.	1.4- 1.7 million psi	for Douglas fir
MOR: 22,000 psi	vs.	12,500 psi	for Douglas fir
Tensile, Ultimate: 31,500 psi	vs.	15,600 psi	for Douglas fir
Shear: 1,700 psi	vs.	910 psi	for Douglas fir
Janka Hardness: 1,600 LB/ft	vs.	660 LB/ft	for Douglas fir
Compression: 7,000-9,600 psi	vs.	3,000-6,000 psi	for concrete
	vs.	3,940 psi	for Douglas fir

CARB2 Compliant

Up to 100% Glue Adhesion Integrity for hybrid softwood laminated lumber.

100% Sustainably-Harvested *Dendrocalamus asper* (Giant bamboo)

FSC Certification Available



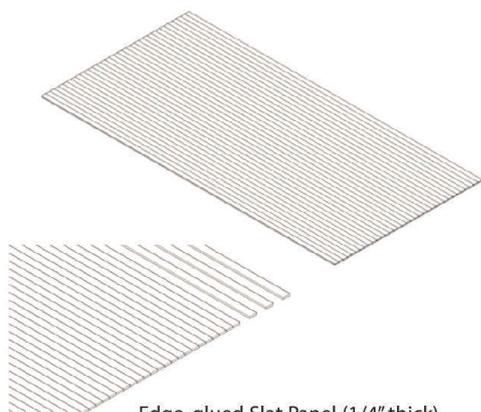
Products

STRENGTH • FIRE RESISTANCE • SUSTAINABILITY

Veneer Sheets

RIZOME 1/4" (4ft x 8/9/10ft) veneers are the ultimate solution for adding fire resistance, structural integrity, and a durable finished surface to nearly any application. Can be seamlessly glued to any conventional or engineered lumber with high adhesion integrity. Our pressurized borate treatment and natural fiber density gives our bamboo lumber an ASTM-E84 Class A Fire Rating, and can improve the fire resistance of nearly any surface. With a superior MOE of 3.7 million psi (vs. 1.4- 1.7 million psi for Douglas fir) our veneers can be added as an exterior layer for CLT, LVL and laminated beams, and provide significant structural benefit where it matters most. With an average Janka hardness of greater than 1,600 LB/ft (vs 660 LB/ft for Douglas fir) RIZOME veneers are durable enough for commercial flooring, concrete forms, scaffold planking, and other high-performance uses.

A 3-5% bamboo reinforcement veneer can transform low-strength sapwood into a structural-grade hybrid panel for higher log yield.



Edge-glued Slat Panel (1/4" thick)

Hybrid Panels

Dimension Range: 1/4"-1.5" (4 x 8ft)

6.35mm-38mm x 1.2m x 2.4m

Single-sided bamboo veneers with 3-ply, softwood

RIZOME hybrid panels can be laid up in nearly any configuration for your unique design specifications. Typical 3-ply or 5-ply softwood core panels with bamboo face veneers are suitable for flooring, cabinetry, furniture and architectural uses. We recommend a light UV finish to highlight the free-and-clear look, and have a wide selection of premium stain finishes. Hybrid panels combine the ease of cutting and affordability of a softwood core with the fire resistance, durability, and aesthetics of bamboo.



Products (Continued)

Strand-Woven Panels

Available dimensions:

1/4", 5/16", 3/4", 1" (4x8ft)

Our gorgeous strand-woven products are useable for a wide range of applications including flooring panels and underlay, wall surfaces, and decking. We offer a range of surface finishes including distressed and smooth-sanded hardwood. Our high-density panels are also ultra-durable for industrial uses



Slats

Available dimensions:

1/4" - 3/8" x 1-1/4" - 1-3/8" x 8/9/10ft

RIZOME slats are the largest and strongest in the world, with a robust global supply chain of giant bamboo. Slats are the raw material for our veneers and laminate products, and are available direct as inputs for finished goods including furniture, flooring, wall paneling, and custom products.

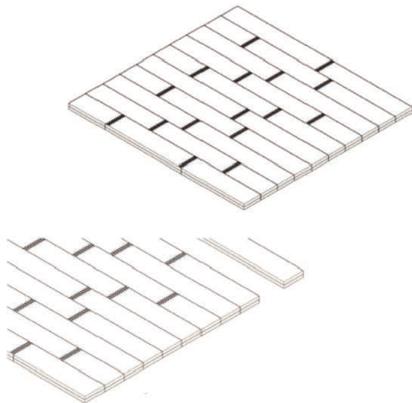


Products (Continued)

Custom Lumber

RIZOME dimensional lumber is perfect for high-rise and commercial structures that can fully utilize the structural properties, fire resistance, and aesthetic value of the material. We can provide custom sizing for your specific project requirements

Minimum Order: 400 Units.



Custom Laminated 2x10

Custom Panels

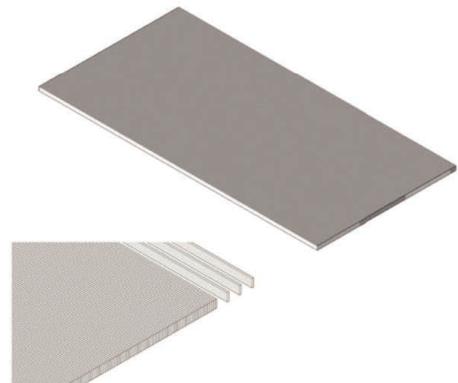
Available Q2 2021

Dimension Range: 1-1.4in x 8ft
(25-35mm x 2.4m)

RIZOME custom face-glued panels are appropriate for ripping into custom

dimension, including 2x6'-12ft boards for high-performance CLT, potentially requiring fewer CLT layers for cost and weight savings and providing a durable, fire-resistant architectural surface for floors and ceiling.

Minimum Order: 400 Units



Face-glued Slat Panel



All products are available in a wide range of stain, UV coating, color and texture finishes.

Sustainability and Embodied Carbon

Each new construction supports CO₂ drawdown, ecosystem restoration, and economic security for thousands of small farmers and indigenous communities.

The climate crisis is the major theme of the decade, and we believe developers have the opportunity and responsibility to become leaders in low embodied carbon construction. Bamboo engineered lumber is one of the most scalable carbon drawdown technologies on the planet, with 10x the carbon sequestration rate as trees and a net negative building carbon footprint. At RIZOME, our mission is to sequester 10 gigatons of CO₂ by 2050 and make bamboo into the primary climate-positive global construction material. Build with bamboo, and help make human development regenerative.

The rhizome is the nodal root network that provides the massive energy needed to birth new bamboo shoots. It is the unique biological structure that makes bamboo truly regenerative.

For inquiries please contact us at: contact@rizomeco.com
www.rizomeco.com