

THERMALLY MODIFIED · PREMIUM SOFTWOOD

BFP Thermo[®] SYP Wood

Pinus taeda

A premium American softwood transformed by heat-and-steam thermal modification — a rich reddish-brown throughout, strong, exceptionally stable, and completely free of chemicals.

SERVICE LIFE

20–25 yrs

DENSITY

500–600 kg/m³

ORIGIN

Southern USA

CERTIFIED

FSC[®] 100%

Overview

BFP Thermo® SYP Wood (*Pinus taeda & spp.*) is a premium, thermally modified Southern Yellow Pine from sustainably managed forests of the southern United States. The modification process uses only **heat and steam** to enhance the timber's cellular structure, resulting in a product with exceptional **dimensional stability** and a rich reddish-brown appearance that is completely free of chemicals. Equilibrium moisture content is permanently reduced to just **4-6%**, upgrading biological durability to **Class 2** with no preservative treatment required.

Key Features

01 Emissions

- The thermal modification process uses only intense heat and steam, with no chemical additives involved.
- Very low Volatile Organic Compound (VOC) emissions for safe indoor and outdoor air quality.

03 Durability & Stability

- Enhanced resistance to decay, rot, and insect attack — upgraded from Class 4 (slightly durable) to Class 2.
- Reduces swelling and warping by up to 60% compared to untreated pine, with markedly lower equilibrium moisture.

05 Health & Safety

- Completely non-toxic and free from hazardous chemicals of any kind.
- Safe to handle, cut, and machine using standard workshop safety measures.

02 Colour

- Heat transforms the pale yellow timber into a consistent rich reddish-brown tone, coloured evenly through the full thickness.
- If left untreated, UV rays will weather the brown colour into a silver-grey patina.

04 Physical Properties

- Pronounced, straight grain with distinct growth rings; a strong, high-stiffness softwood.
- Firm surface (~620-780 lbf Janka) well suited to decking, cladding, and porch flooring.

06 Environment

- 100% natural, renewable material from fast-growing, sustainably managed southern US plantation forests.
- Chemical-free production with lower environmental impact than pressure-treated timber; fully biodegradable or recyclable.

Technical Specifications

TREATMENT TEMP

212–220°C

PEAK DURATION

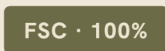
2–3 hours

TOTAL CYCLE

~50 hours

ATMOSPHERE

Steam-shielded

SPECIFICATION	DESCRIPTION
Scientific Name	<i>Pinus taeda</i> (Southern Yellow Pine — Loblolly group)
Country of Origin	Southern United States
Modification Process	Thermal Modification (Heat + Steam) — Thermo-D class, SFS 5765
Colour Tone	 Rich reddish-brown throughout
Density (approx.)	Medium: 500 – 600 kg/m ³ (~570–660 kg/m ³ untreated, reduced ~5–10% by thermal treatment)
Moisture Content	4–6% equilibrium (reduced from ~12% untreated)
Workability	Good — machines, glues, and finishes cleanly. The thermal process removes resin and eliminates pitch bleed, but reduces bending strength and increases brittleness versus raw wood; pre-drilling is recommended.
Movement Class	Small Movement (up to 60% improved dimensional stability vs. untreated pine)
Durability Class	Class 2 – Durable (BS EN 350; upgraded from Class 4 – slightly durable)
Recommended Fixings	Stainless steel screws or hidden fastening clips are essential to prevent reaction staining on the wood surface.
Expected Service Life	20–25 years above ground, depending on installation method, maintenance, and exposure conditions
Certifications	 Forest Stewardship Council

Figures are nominal averages for thermally modified Southern Yellow Pine (*Pinus taeda* and related species), cross-checked against USDA Forest Service Wood Handbook data, published ThermoWood (Thermo-D, SFS 5765) specifications, and BS EN 350 durability classes, and may vary with natural timber.

BFP

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