

THERMALLY MODIFIED · PREMIUM SOFTWOOD

BFP Thermo[®] Radiata Pine

Pinus radiata

A premium New Zealand plantation softwood transformed by heat-and-steam thermal modification — a rich golden-brown throughout, exceptionally stable, knot-free, and completely free of chemicals.

SERVICE LIFE

15–25 yrs

DENSITY

380–480 kg/m³

ORIGIN

New Zealand

CERTIFIED

FSC[®] 100%

Overview

BFP Thermo® Radiata Pine (*Pinus radiata*) is a premium, thermally modified softwood from sustainably managed New Zealand plantation forests. 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 golden-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 to Durability Class 2.
- Reduces swelling and warping by up to 60% compared to untreated pine.

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 pale pine into a consistent golden-brown tone with a slight bronze glow throughout the timber.
- If left untreated, UV rays will weather the brown colour into a silver-grey patina.

04 Physical Properties

- Knot-free, plantation-grown boards with an even grain; lightweight for easy handling and installation.
- Thermal treatment removes resin, eliminating bleeding and staining on finished surfaces.

06 Environment

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

Technical Specifications

TREATMENT TEMP

220°C

PEAK DURATION

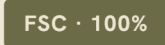
2-3 hours

TOTAL CYCLE

~50 hours

ATMOSPHERE

Steam-shielded

SPECIFICATION	DESCRIPTION
Scientific Name	<i>Pinus radiata</i> (Radiata / Monterey Pine)
Country of Origin	New Zealand (plantation-grown)
Modification Process	Thermal Modification (Heat + Steam) — Thermo-D class, SFS 5765
Colour Tone	 Golden-brown with a slight bronze glow
Density (approx.)	Lightweight: 380 – 480 kg/m ³ (~415 kg/m ³ oven-dry)
Moisture Content	4-6% equilibrium (reduced from ~12% untreated)
Workability	Excellent — lightweight and easy to machine. The thermal process makes the wood stable but slightly more brittle than raw wood; care required during handling.
Movement Class	Small Movement (up to 60% improved dimensional stability vs. untreated pine)
Durability Class	Class 2 – Durable (BS EN 350; upgraded from Class 4-5)
Recommended Fixings	Stainless steel screws or hidden fastening clips are essential to prevent reaction staining on the wood surface.
Expected Service Life	15-25 years above ground, depending on installation method, maintenance, and exposure conditions
Certifications	 Forest Stewardship Council

Figures are nominal averages for thermally modified radiata pine (*Pinus radiata*), cross-checked against published ThermoWood (Thermo-D, SFS 5765) and BS EN 350 durability data, and may vary with natural timber.

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