

THERMALLY MODIFIED · PREMIUM HARDWOOD

BFP Thermo® Oak Wood

Quercus sp.

A premium European hardwood transformed by heat-and-steam thermal modification — a rich, exotic dark brown throughout, exceptionally durable and stable, and completely free of chemicals.

SERVICE LIFE

25+ yrs

DENSITY

650–700 kg/m³

ORIGIN

Europe

CERTIFIED

FSC® 100%

Overview

BFP Thermo® Oak Wood (*Quercus sp.*) is a premium, thermally modified hardwood from sustainably managed European 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, exotic dark-brown appearance that is completely free of chemicals. Equilibrium moisture content is permanently reduced to just **4–6%**, upgrading biological durability to **Class 1** — very durable, 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 1 (very durable).
- Reduces swelling and warping by up to 60% compared to untreated oak.

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 deepens the golden oak into a rich, exotic dark-brown tone throughout the timber — a sustainable alternative to tropical hardwoods.
- If left untreated, UV rays will weather the brown colour into a silver-grey patina.

04 Physical Properties

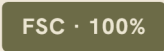
- Bold, prominent straight grain with a refined, even texture; hard-wearing surface for decking and flooring.
- High surface hardness (~1,120–1,360 lbf Janka) resists dents, wear, and daily traffic.

06 Environment

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

Technical Specifications

TREATMENT TEMP	PEAK DURATION	TOTAL CYCLE	ATMOSPHERE
215°C (419°F)	2-3 hours	~50 hours	Steam-shielded

SPECIFICATION	DESCRIPTION
Scientific Name	<i>Quercus sp.</i> (European / White Oak)
Country of Origin	Europe
Modification Process	Thermal Modification (Heat + Steam) — Thermo-D class, SFS 5765
Colour Tone	 Rich, exotic dark brown throughout
Density (approx.)	Heavy: 650 – 700 kg/m ³ (reduced ~10% by thermal treatment)
Moisture Content	4-6% equilibrium (reduced from ~12% untreated)
Workability	Good — machines and finishes cleanly with sharp tools. The thermal process makes the wood stable but slightly more brittle than raw wood; pre-drilling is recommended.
Movement Class	Small Movement (up to 60% improved dimensional stability vs. untreated oak)
Durability Class	Class 1 – Very Durable (EN 350; heartwood, upgraded by modification)
Recommended Fixings	Stainless steel screws or hidden fastening clips are essential to prevent reaction staining on the wood surface.
Expected Service Life	25+ years above ground, depending on installation method, maintenance, and exposure conditions
Certifications	 Forest Stewardship Council

Figures are nominal averages for thermally modified oak (*Quercus sp.*), cross-checked against published ThermoWood (Thermo-D) and EN 350 durability data, and may vary with natural timber.



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+91-9992023769

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www.bfppl.com