

TECHNICAL DATASHEET

Bamboo Decking

Solid strand-woven bamboo decking — roughly 3× harder than oak or teak, Durability Class 1, and a verified EPD showing each board stores more carbon than it takes to make. Thermo, Nano & Grey.



Dark



Brown

AT A GLANCE

Board size	1850 × 140 mm
Thickness	18 mm (15 / 20)
Fire rating	Bfl-s1 (Euroclass)
Hardness	106.8 N/mm² Brinell
Durability	Class 1 / UC 4
Warranty	25 years
EPD verified	EN 15804+A2

The Product Line

All boards are solid strand-woven (compressed) bamboo, 1850 × 140 mm, pre-oiled, with a reversible profile. Two colours and treatments — one shared spec foundation.



Thermo

Classic black-brown

Thermally modified by heat treatment — no chemicals. Class 1 durability achieved purely through the carbonisation process.

18 mm · 20 mm available



Nano

Warm dark brown

Patented CeramiX nano-particle treatment for a warm, deep tone and very high dimensional stability in wet conditions.

18 mm · 15 / 20 mm available

+++ End-matched T&G

Kop-tong joints connect boards end-to-end without landing on a joist — unlimited run lengths, minimal waste.

≡ Reversible

Two surfaces in one board: choose the grooved (ribbed) side or the side or the flat side up.

≡ Symmetrical H-profile

Hidden steel-clip installation from the sides — no visible screws, a perfectly clean deck surface.

○ Pre-oiled

Factory-finished with protective oil — ready to install straight from straight from the pallet.

Up Close — Nano & Thermo

Studio close-ups of the surface, the ribbed profile and the cross-section — so you can judge the grain, the texture and the hidden-clip joint down to the fibre.

NANO • WARM



Surface & grain



Ribbed profile



Cross-section & clip

THERMO • DARK



Surface & grain



Ribbed profile



Cross-section & clip

Specifications & Composition

BOARD DIMENSIONS

1850 × 140

mm · 1 board = 0.259 m² · ~3.9 boards/m²

DENSITY

1,150

kg/m³ · Nano ~1,200 · ~21.6 kg/m²

COMPOSITION

84 %

bamboo fibre · 15.7% resin · 0.2% oil

PROPERTY	VALUE	STANDARD
Dimensions	1850 × 140 × 18 mm	Grey 20 mm
Durability class	Class 1	EN 350
Use class	Class 4	EN 335
Brinell hardness	106.8 N/mm ²	EN 1534
Bending strength	87 N/mm ²	EN 408
Modulus of elasticity	19,100 N/mm ²	EN 408
Fire classification	Bfl-s1	EN 13501-1

PROPERTY	VALUE	STANDARD
Dimensional stability (24 h)	L 0% · W 0.4%	EN 15534-1
Blue-stain fungi	Class 0	EN 152
Termite resistance	Class D	EN 350
Formaldehyde	E1 (ND)	EN 717-1
Slip resistance	R10	DIN 51130
Moisture content	10–14%	Nano 8–12%
Warranty	25 years	Material

Mechanical Properties

Brinell hardness, four-point bending strength and modulus of elasticity tested per EN 1534 and EN 408 — strand-woven compression gives bamboo a hardness roughly three times that of European oak.

BRINELL HARDNESS

106.8

N/mm² · EN 1534 · ~3× oak

BENDING STRENGTH

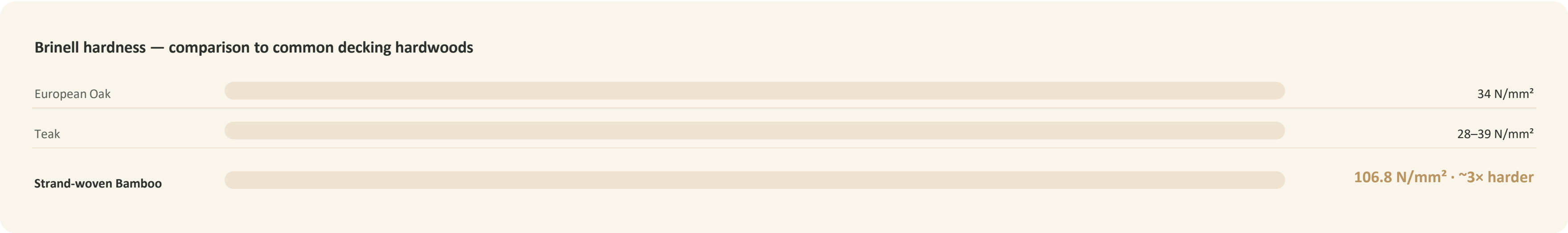
87

N/mm² mean · EN 408

MODULUS OF ELASTICITY

19,100

N/mm² · EN 408 · Nano 16,700



NOTE ON VALUES

Mean values are characteristic test results, not structural-design values. For load-bearing substructure design (joists, spans), request our strand-woven beam span tables and structural-design figures.

Fire Performance — Bfl-s1

Reaction-to-fire tested per EN ISO 9239-1 (radiant heat, critical heat flux) and EN ISO 11925-2 (single-flame source). Classified per EN 13501-1 by EPH Dresden — DIBt-notified body 0766.



EUROCLASS

Bfl-s1

Highest practical class for floor & deck coverings — no significant flame contribution and no significant smoke production.

Test Results · EPH Dresden

Parameter	Result	Threshold
Critical heat flow (EN ISO 9239-1)	11.02 kW/m²	≥ 8.0 → Bfl
Smoke production	0.2 % × min	≤ 750 → s1
Single-flame ignitability	Fulfilled	Flame ≤ 150 mm
Certificate	No. 2717646	EPH / DIBt 0766

ABOUT THIS RATING

Bfl-s1 is the reaction-to-fire class for the deck-board (floor) orientation per EN 13501-1. No CE Declaration of Performance (DoP) is issued for decking — do not interpret this as a CE mark. The full EPH test report is available on request.

Durability & Outdoor Performance

Independently tested by RISE Research Institutes of Sweden per ENV 12038 (basidiomycetes) + ENV 807 (soft rot) + EN 350 + EN 335. Thermo treatment reaches Class 1 durability without any chemical preservatives.

DURABILITY CLASS

Class 1

Very durable — EN 350 (RISE, 19 Jan 2018)

USE CLASS

UC 4

Exterior, ground / fresh-water contact — EN 335

DECAY RESISTANCE — MEDIAN MASS LOSS AFTER FUNGAL EXPOSURE	BASIDIOMYCETES	SOFT ROT
Untreated pine (control)	~50 %	high
CCA-treated UC4 reference	—	11–29 %
Thermo Bamboo Decking	2.5 – 5.0 %	0.6 – 2.6 %

R10

Slip resistance • DIN 51130 (oil-wet ramp test, Intertek)

The standard rating for outdoor terraces, balconies, walkways and residential garden decking. Untreated, the deck weathers to an elegant light-grey patina — purely aesthetic, with no effect on durability.

Chemical Safety & Emissions

Independent test reports cover formaldehyde emission to both EU and US standards, plus substance-of-very-high-concern screening per EU REACH Article 33(1) — more than 240 SVHCs screened.

FORMALDEHYDE · EU

E1

EN 717-1 / EN 13986

ND (Not Detected)

MDL 0.050 mg/m³ · comfortably within Class E1

SGS · XMHL1909005296OT

FORMALDEHYDE · USA

ND

ASTM D6007-14

Below detection limit

Passes CARB Phase 2 + TSCA Title VI

SGS · CANMLC2207903301

REACH SVHC

All ND

EC 1907/2006 Art. 33(1)

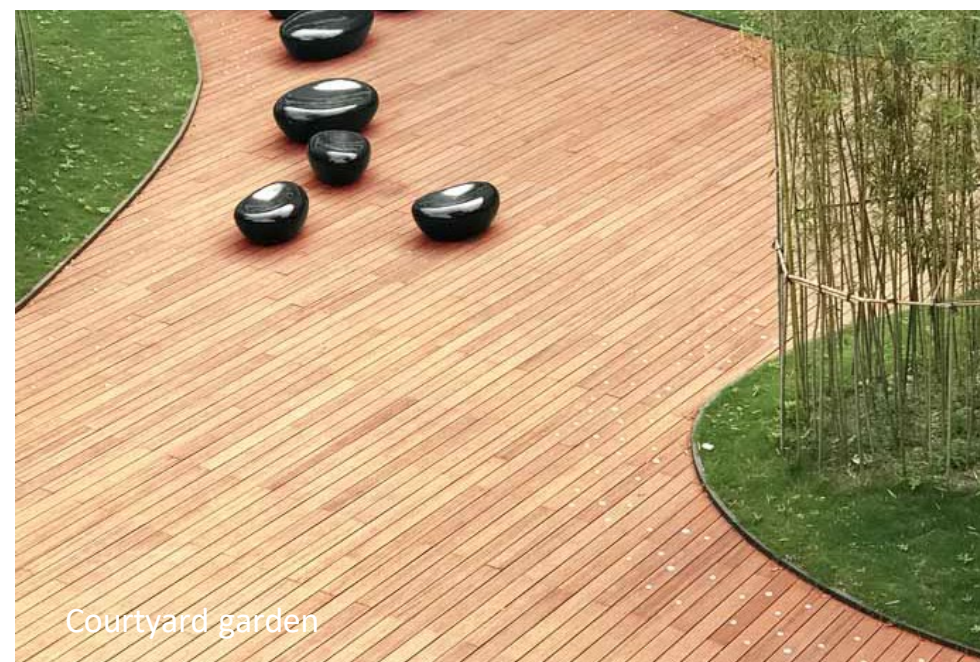
240+ Substances of Very High Concern

All Not Detected · meets WFD requirement

Intertek · 230308101GZU-001

In the field

Strand-woven bamboo decking in use — from resort pools and roof terraces to public plazas and covered walkways, holding its colour and grip in every climate Europe throws at it.

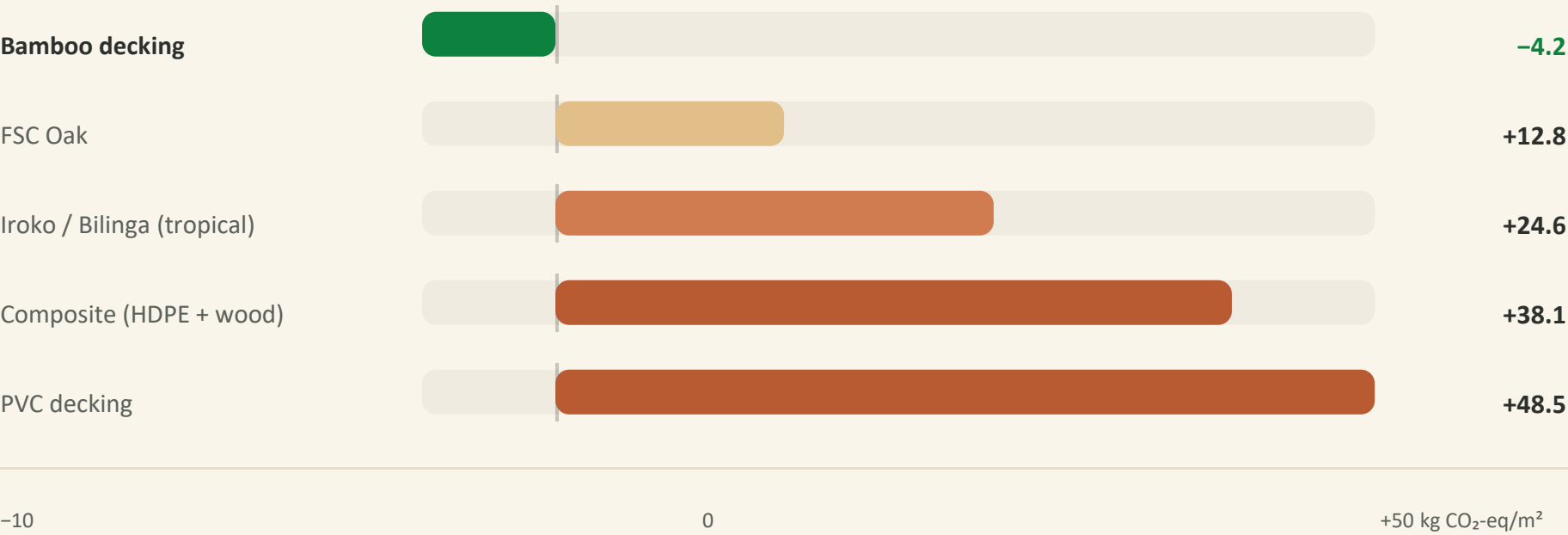


Life-Cycle Assessment

Verified Environmental Product Declaration per EN 15804+A2 (EPD S-P-11526, International EPD® System). Cradle-to-gate, each m² of bamboo decking is a net carbon sink — storing far more CO₂ than it emits to produce.

Global Warming Potential by decking material

kg CO₂-eq per m² · cradle-to-gate (A1–A3) · lower is better — negative = net carbon sink



NET CRADLE-TO-GATE BALANCE

-4.2

kg CO₂-eq per m²

1.15 kg CO₂-eq of biogenic carbon is stored per kg of product, against a manufacturing footprint of just 0.30 kg CO₂-eq/kg (A1–A3). Per m²: ≈ 25 kg stored vs ≈ 6.5 kg emitted.

LCA modules per m² (A1–A3)

A1	Raw material — bamboo growth	-12.4
A2	Transport to factory	+0.8
A3	Manufacturing & treatment	+7.4

Certified, not claimed

Every performance figure on this sheet traces back to an independent, third-party certificate or test report. The full set is available for tender and MVI tender and MVI documentation.

◆ EPD Environmental Product Declaration The International EPD® System, Stockholm · EN 15804+A2 / ISO 15804+A2 / ISO 14025 Cradle-to-grave LCA, valid to Dec 2028 S-P-11526 · environdec.com	◆ FSC® Chain of Custody — FSC 100% DNV Business Assurance Sweden FSC 100% claim, valid to 11 May 2030 DNV-COC-002017	◆ RISE Durability Class 1 / Use Class 4 RISE Research Institutes of Sweden · ENV 12038 + ENV 807 "Very durable" — outperforms CCA-treated reference Memo 19 Jan 2018	◆ EPH Fire, Hardness & Bending EPH Dresden · DIBt notified body 0766 Bfl-s1 · Brinell 107 · bending 87 N/mm² 2717646
◆ SGS Formaldehyde · EU SGS · EN 717-1 Not Detected → Class E1 XMHL1909005296OT	◆ SGS Formaldehyde · USA SGS · ASTM D6007-14 ND · CARB Phase 2 + TSCA Title VI CANMLC2207903301	◆ Intertek REACH SVHC + WFD Intertek · EC 1907/2006 Art. 33(1) 240+ SVHCs all Not Detected 230308101GZU-001	◆ Intertek Slip Resistance Intertek · DIN 51130 ramp test R10 — outdoor decking standard 190520013SHF-001

THANK YOU

Need more detail?

Original test reports, the full EPD, FSC certificate and product samples are available on request. Get in touch for project-specific specifications, substructure span tables, custom dimensions or the complete installation & maintenance guide.

GET IN TOUCH

Bamboo Construct

Stationsplein 26, 6512 AB Nijmegen, Netherlands

info@bambooconstruct.com

+31 (0)251 313 177