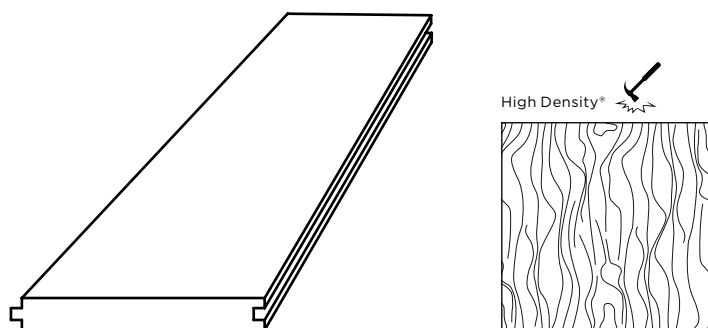


MOSO® bamboo ultradensity® flooring

(for semi-outdoor high traffic areas for installation with MOSO® Bamboo X-treme® sub beams)

MOSO® Bamboo UltraDensity® is a solid bamboo flooring board made from compressed bamboo strips with an Ultra-High Density®. Thanks to its unique production method the material is extremely stable, hard and durable and therefore suitable for the toughest conditions: in very high traffic areas and even in semi-outdoor areas (protected from direct rain or sunshine). The boards are available unfinished, with rough sanded faces and have to be finished on site. The boards come with tongue and groove and a micro bevel on all 4 sides. This flooring type has to be installed screwed down on MOSO® Bamboo X-treme® sub beams or alternative sub beams.



HD: High Density®, B: Bevel

Caramel	Style	Finish	Edges	Dimensions (mm)
BF-DS1070	HD	-	B	1900x160x38
BF-DS1060	HD	-	B	1900x160x32
BF-DS2060	HD	-	B	1900x160x20

The full MOSO® Bamboo UltraDensity® flooring system, to be installed on MOSO® Bamboo X-treme® sub-beams, with peripheral joints and surface finishing with Woca N°1 products (oil and soaps), is intended for installation in premises classified up to U₄P₄E₂C₂ within the loading limits corresponding to this classification*. This Technical field has been registered at CSTB under the number ATE_x 2385.

* (see Note on UPEC classification and UPEC classification of premises, e-CSTB n°3509 of November 2004) Installation takes place on new or existing substrates made of concrete or cement mortar taking into account the humidity and flatness conditions defined in NF DTU 51.2. Wood-based substrates and screeds containing calcium sulfate are excluded. The use of this method is limited to Class 2 (according to Eurocode 5) and Class of use 3.1 (according to EN 335).

approved by ATE_x n° 2385
on the 19th of December 2016

Class U₄P₄E₂C₂



installation summary (full version available on www.moso.eu/ultradensity)

- Install a PE (Polyethylene) film as moisture barrier.
- Install a suitable, fixed, stable and durable sub frame, preferably using Bamboo X-treme® sub beams. Distance between the beams: see table 'field of use' (page 7).
- Always make sure the end of the board is supported by a joist.
- Maximum length/width of the floor 100 m / 15 m.
- Fix the boards on the sub frame screwing into the tongue of the board at a 45° angle. Always predrill before screwing.
- After cleaning and drying, apply an appropriate finish (Woca N°1 is advised for heavy traffic areas).
- After installation: make sure proper cleaning and maintenance is done, according to the chosen finish.
- For further information: please see the installation and maintenance instructions.

technical characteristics and certifications

- Density (product): +/- 1150 kg/m³
- Composition: 93% bamboo strips (lignin/cellulose) and 7% glue (outdoor resistance).
- Top layer thickness / Wear layer: approx. 7 mm for the 20 mm boards / 11 mm for the 32 mm boards / 14 mm for the 38 mm boards.
- Dimensional stability: Results conform to French standard NF B 54008 (ISO 24339).
- Resistance to Indentation – Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire ¹⁾: Class Bfl-s1 (EN 13501-1)
- Slip resistance ²⁾: USRV 118 (EN 13036-4), R10 (CEN/TS 16165 Annex B - DIN 51130)
- Emission of VOC: A+ (ISO 16000-9)
- Modulus of Elasticity: 12610 N/mm² (EN 408)
- Breaking strength: 95.5 N/mm² (EN 310)
- Biological durability: Class 2 (EN 350 / CEN/TS 15083-1)
- Use class: Class 3.1 (EN 335 / EN 460)
- Use classification according to French standard: Class 41 (XP B 53-669)
- UPEC classification according to French standard: Class U₄P₄E₂C₂ ¹⁾
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) (www.moso.eu/lca)
- Environmental Product Declaration - EPD (EN 15804) (www.moso.eu/epd)
- FSC[®]: Products available with FSC[®] certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC[®]), EQ2 v2009: MR 6, MR 7 (FSC[®]), IEQ 4.4
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC[®]), MAT 5
- Guarantee: 30 years

¹⁾ only when finished with Woca N°1 oil.



The mark for responsible forestry
FSC® C002063
www.fsc.org
Only the products defined as such,
are FSC certified

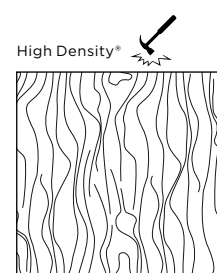
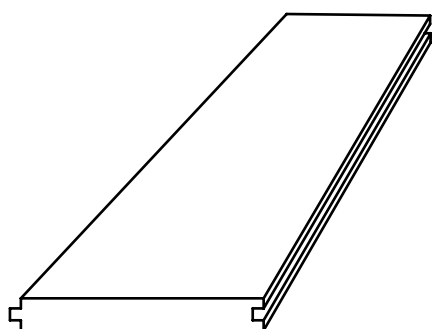


breeam

MOSO® bamboo ultradensity® flooring

(for high traffic areas for installation with glue)

MOSO® Bamboo UltraDensity® is a solid bamboo flooring board made from compressed bamboo strips with an Ultra-High Density®. With its unique production method the material is extremely stable, hard and durable and therefore suitable for high traffic areas. The boards are available unfinished, and have to be finished on site. The boards come with tongue and groove and a micro bevel on all 4 sides. This flooring type has to be fully glued down.



HD: High Density®, MB: Micro bevel

Caramel	Style	Finish	Edges	Dimensions (mm)
BF-DS2061	HD	-	MB	1900x160x18

installation summary (full version available on www.moso.eu/ultradensity)

- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: it should be flat/clean/stable and should not exceed the maximum allowed moisture content (for example 1.8% for sand cement).
- The floor should be fully glued.
- Elastic adhesive systems like 1-component Polyurethane or silan type of adhesives only can be used, when:
 - Shear strength $T_s > 1.4 \text{ N/mm}^2$
(3 days balanced at 23 degrees Celsius/50% Air Humidity)
 - Shear elongation $\gamma \geq 0.5$
(3 days balanced at 23 degrees Celsius/50% Air Humidity)
- Please ask your glue supplier for more information.
- After cleaning and drying, apply an appropriate finish (Woca N°1 is advised for heavy traffic areas).
- This floor type can be installed - under certain conditions - on floor heating / cooling.

technical characteristics and certifications

- Density (product): +/- 1150 kg/m³
- Composition: 93% bamboo strips (lignin/cellulose) and 7% glue (outdoor resistance)
- Top layer thickness / Wear layer: approx. 7 mm
- Dimensional stability: Results confirms to French standard NF B 54008 (ISO 24339)
- Resistance to Indentation - Brinell Hardness: $\geq 9.5 \text{ kg/mm}^2$ (EN 1534)
- Reaction to fire ¹⁾: Class Bfl-s1 (EN 13501-1)
- Emission of VOC: A+ (ISO 16000-9)
- Use class: Class 3.1 (EN 335 / EN 460)
- Use classification according to French standard: Class 41 (XP B 53-669)
- UPEC classification according to French standard: Class U₄P₄E₂C₂ ¹⁾
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) (www.moso.eu/lca)
- Environmental Product Declaration - EPD (EN 15804) (www.moso.eu/epd)
- FSC®: Products available with FSC® certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®), EQ2 v2009: MR 6, MR 7 (FSC®), IEQ 4.4
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5
- Guarantee: 30 years

¹⁾ only when finished with Woca N°1 oil

Class U₄P₄E₂C₂

