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.

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 No1 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 1): USRV 118 (EN 13036-4), R 10 (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
- 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: HÉA 2, MAT 1, MAT 3 (FSC®), MAT 5
- Guarantee: 30 years

1) only when finished with Woca No1 oil.
**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.

---

**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 Ts > 1.4 N/mm² (3 days balanced at 23 degrees Celsius/50% Air Humidity)
  - Shear elongation γ >= 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 confirm to French standard NF B 54008 (ISO 24339)
- Resistance to Indentation – Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire 1): Class Bh-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
- 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

---

**MOSO® Bamboo UltraDensity®**

- **Caramel**
- **Style**: HD
- **Finish**: -
- **Edges**: MB
- **Dimensions (mm)**: 1900x160x18

---

**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 confirm to French standard NF B 54008 (ISO 24339)
- Resistance to Indentation – Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire 1): Class Bh-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
- 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