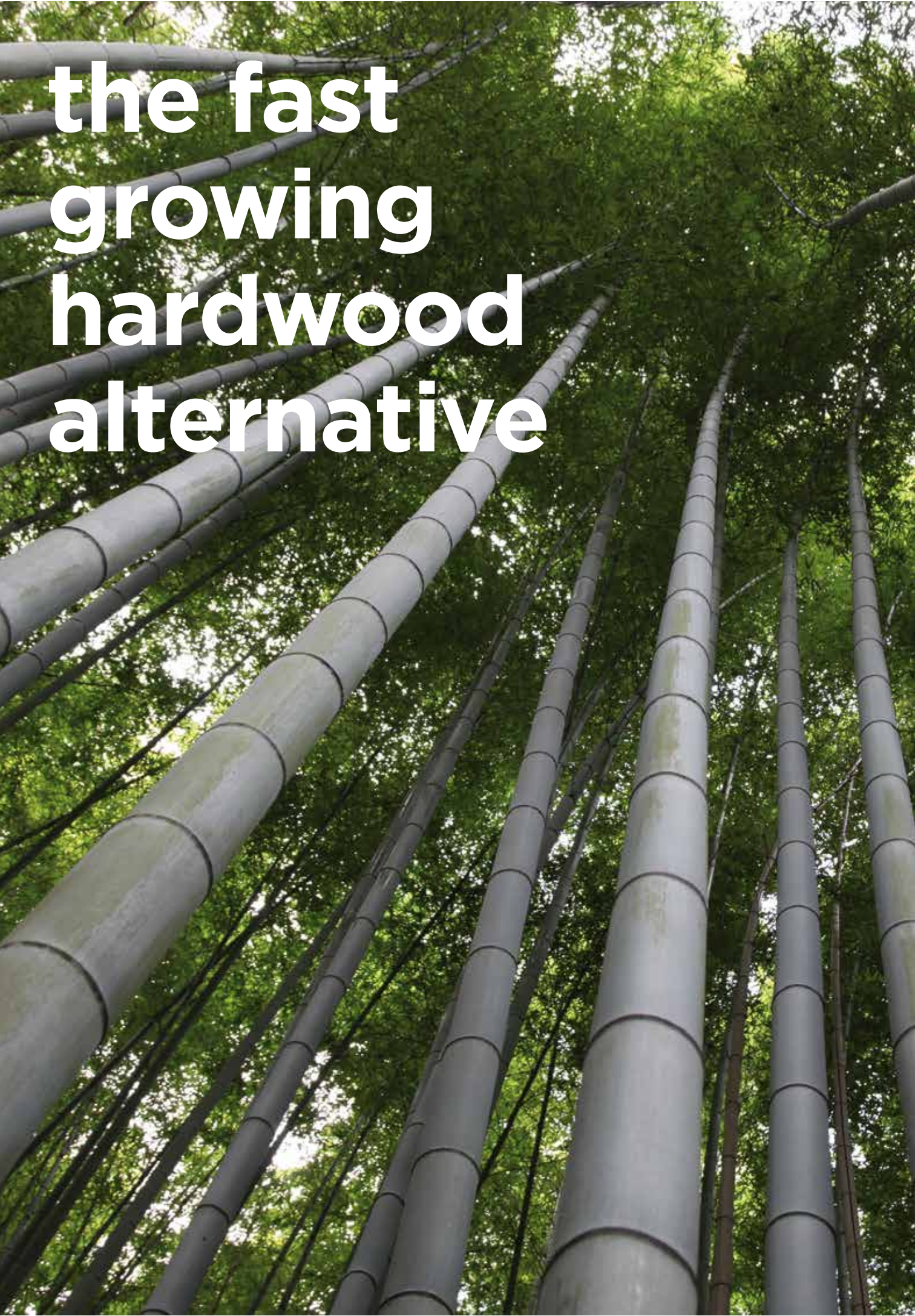


# MOSO® product catalogue







# the fast growing hardwood alternative

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This MOSO® product catalogue gives an overview of all standard products within the MOSO® assortment. Most of these products are available from stock. Apart from the standard product range, MOSO® can produce and supply custom made products.

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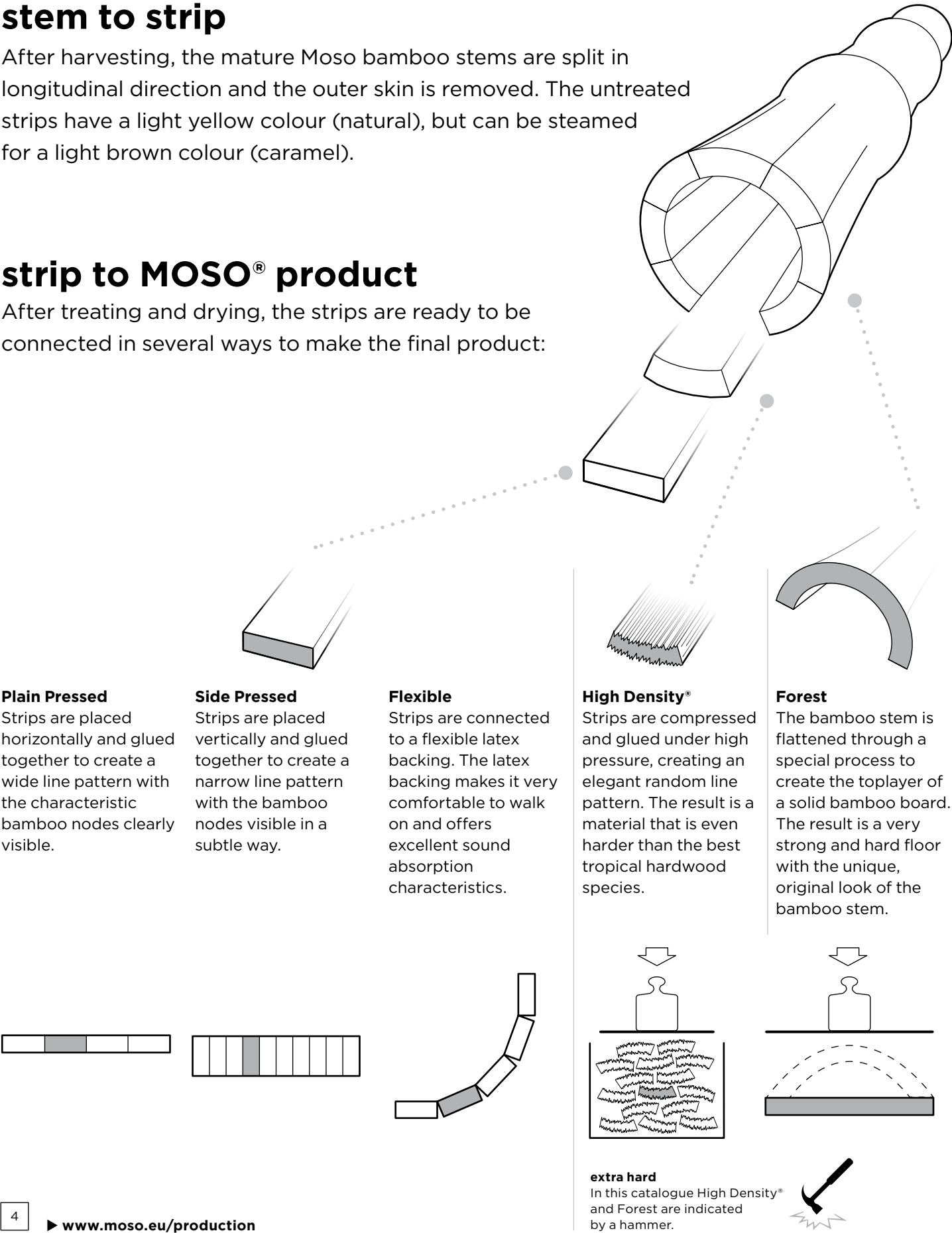
# production process

## stem to strip

After harvesting, the mature Moso bamboo stems are split in longitudinal direction and the outer skin is removed. The untreated strips have a light yellow colour (natural), but can be steamed for a light brown colour (caramel).

## strip to MOSO® product

After treating and drying, the strips are ready to be connected in several ways to make the final product:



### Plain Pressed

Strips are placed horizontally and glued together to create a wide line pattern with the characteristic bamboo nodes clearly visible.

### Side Pressed

Strips are placed vertically and glued together to create a narrow line pattern with the bamboo nodes visible in a subtle way.

### Flexible

Strips are connected to a flexible latex backing. The latex backing makes it very comfortable to walk on and offers excellent sound absorption characteristics.

### High Density®

Strips are compressed and glued under high pressure, creating an elegant random line pattern. The result is a material that is even harder than the best tropical hardwood species.

### Forest

The bamboo stem is flattened through a special process to create the toplayer of a solid bamboo board. The result is a very strong and hard floor with the unique, original look of the bamboo stem.

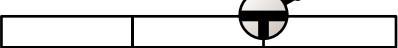
**extra hard**  
In this catalogue High Density® and Forest are indicated by a hammer.

# explanation of technical terms and icons

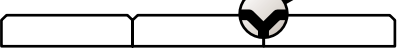
## edges

MOSO® floor boards are available with various kinds of edges that each provide a different look: sharp edge for a closed, flat surface, bevel for a clearly visible V-groove and micro bevel for a subtly visible V-groove.

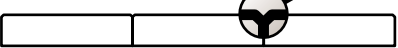
### Sharp Edge (SE)



### Bevel (B)



### Micro Bevel (MB)



## finishes

To protect your MOSO® floor, most come pre-oiled or pre-lacquered according to the highest European quality standard and with the best finishing products available:

Lacquered with Bona /  
Treffert (L)

**Bona®**



Pre-oiled with Woca (O)



Oiled with Saicos® (SO)



### CE marking

Through CE marking the European Union demands that various product categories comply with highest quality requirements with respect to safety, health, environment and protection of consumers. MOSO® already acquired the CE marking for all of its flooring products years ago.



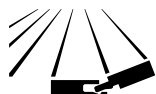
### fire classification

According to EN13501-1 the fire safety of flooring products can be classified ranging from A<sub>fl</sub> (non combustible) to F<sub>fl</sub> (highly combustible). In order to comply with CE marking all MOSO® floors were tested for fire safety, providing a satisfactory result ranging from B<sub>fl</sub> to D<sub>fl</sub>.



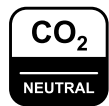
### floor heating / cooling

Under specific conditions several MOSO® floors are suitable for installation on floor heating / cooling systems. For details, please refer to the "floor heating / cooling" section in this catalogue.



### integrated click system

For quick and easy installation without the use of glue.



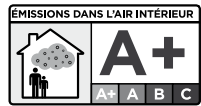
### carbon footprint

MOSO® has commissioned Delft University of Technology to execute an official LCA and carbon footprint study. The report, available at [www.moso.eu/lca](http://www.moso.eu/lca), concludes that all assessed MOSO® products (all solid bamboo flooring, decking, beams, panels and veneer) are CO2 negative over the full life cycle ("cradle till grave"). The environmental impact of MOSO® products, excluding carbon sequestration effect, was also published in an official Environmental Product Declaration (EPD) following EN 15804 (see also [www.moso.eu/epd](http://www.moso.eu/epd)).



### indoor emissions

For a healthy indoor environment it is important that products used indoors have very low emissions and comply with the official European E1 norm (EN 717-1). All MOSO® products meet this standard, while several MOSO® products even comply with E0, the strictest (unofficial) emission class available, commonly used to indicate that the product has a very low or no detectable emission (formaldehyde emissions <0.025 mg/m³) and/or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 class. Furthermore, all MOSO® bamboo floors have been rated A and A+ in France with respect to emissions of volatile organic compounds: the best classification possible!



### FSC® certification

Globally recognized as the best and most stringent responsible certification system in the wood industry, FSC® certification was recently also developed for bamboo. As pioneer in the bamboo industry, MOSO® is able to provide bamboo products with FSC® certification (FSC C002063). Only the products defined as such in this catalogue are FSC® certified.



### LEED & BREEAM

The application of MOSO® bamboo products can contribute to various credits for LEED and BREEAM, the most important green building certification programs available worldwide. Contact us at [sustainability@moso.eu](mailto:sustainability@moso.eu) for more detailed information.



### Nordic Swan Ecolabel

The Nordic Ecolabel is the best known and most respected eco-certification for many product groups in the Nordic countries (Norway, Sweden, Denmark, Iceland and Finland). MOSO® Bamboo Forest met all the strict requirements regarding healthy ingredients, sustainably sourced bamboo, safe & environmentally friendly production, proper waste management, low VOC emissions and low energy use during consumption.

# MOSO®

## Bamboo Flooring

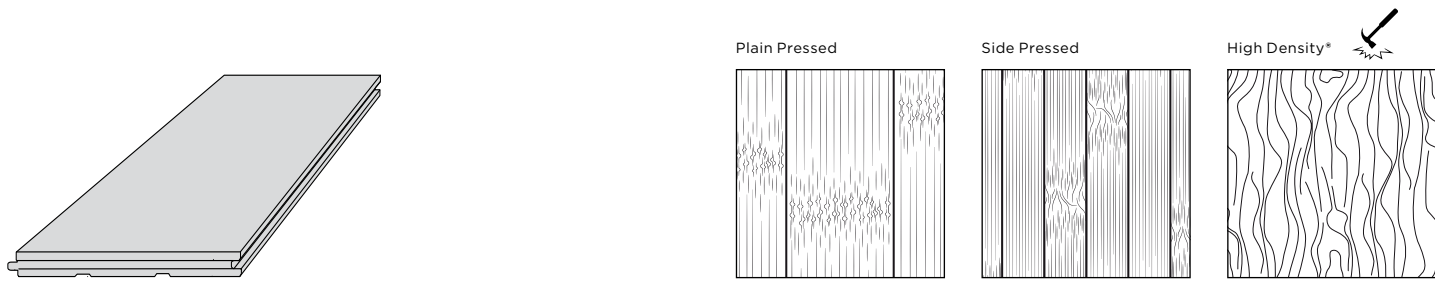
### Grand Collection

The Grand Collection was specially developed for customers who appreciate the aesthetics of **large boards** for a **spacious** and **exclusive** look. Thanks to the generous dimensions of the boards, the installation can be done relatively fast. The wide choice of colours and finishes in the Grand Collection offers a suitable bamboo flooring for any interior.

bamboodelite  
bamboosolida  
bamboonoble

## MOSO® bamboodelite (solid wide board)

MOSO® Bamboo Elite is a floor board that is relatively long and wide (compared to other MOSO® floors) and is made from three layers of solid bamboo, equipped with a tongue/groove connection.



**PP:** Plain Pressed, **SP:** Side Pressed, **HD:** High Density\*, **HDS:** High Density\* Striped,  
**L:** Lacquered Bona 85 g/m², **LN:** Lacquered Bona Naturale (extra matt) 125 g/m², **O:** Pre-oiled Woca Air Dried (has to be re-oiled after installation),  
**SE:** Sharp Edge, **MB:** Micro Bevel.\*) Middle layer cross pressed.

Natural	Caramel	Style	Finish	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m²)
	BF-LA350	PP*	-	SE	1960x159x15	8	2.493
	BF-LA370	SP*	-	SE	1960x159x15	8	2.493
BF-LA301	BF-LA351	PP*	L	MB	1960x159x15	8	2.493
BF-LA321	BF-LA371	SP*	L	MB	1960x159x15	8	2.493
BF-DT301	BF-DT351	HD*	LN	MB	1830x142x13	6	1.559
BF-DT303	BF-DT353	HD*	O	MB	1830x142x13	6	1.559
	BF-DT353S2	HDS*	O	MB	1850x128x13	8	1.894

### installation summary (full version available on [www.moso.eu/bamboo-elite](http://www.moso.eu/bamboo-elite))

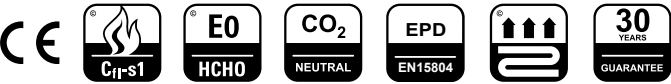
- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this should be flat/clean/stable and should not exceed the maximum allowed moisture content (for example 1.8% for sand cement).
- The floor should be fully glued (for glue details see full version of installation instruction) and can also be installed floating (max width 6 m, max length 12 m, using expansion gaps).
- 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 y >=0.5
  - (3 days balanced at 23 degrees Celsius/50% Air Humidity)Please ask your glue supplier for more information.
- This floor type can be installed - under certain conditions - on floor heating / cooling. ► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: make sure proper cleaning and maintenance is done, fitting to the chosen finish. For oiled finish: the floor has to be re-oiled after installation. Polish the oil with a red pad or patina disc (possibly afterwards with white pad).

### technical characteristics and certifications

- Density (Toplayer): +/- 700 kg/m³ (SP/PP), +/- 1050 kg/m³ (HD)
- Top layer thickness / Wear layer: approx. 5 mm (SP/PP), approx. 3 mm (HD)
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP/PP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP/PP)
- 8% at 20°C and 50% rel. Air Humidity (SP/PP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (SP/PP), ≥ 9.5 kg/mm² (HD) (EN 1534)
- Reaction to fire: Class Cfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E0 (< 0.025 mg/m³) <sup>2)</sup> Class E1 (< 0.124 mg/m³, EN 717-1)
- Slip resistance <sup>1)</sup>: USRV 22 (SP/PP), USRV 26 (HD) (CEN/TS 15676) / R 10 (DIN 51130)
- Thermal conductivity: 0.17 W/mK (SP/PP), 0.19 W/mK (HD) (EN 12667)
- Thermal resistance: 0.0882 m²K/W (SP/PP), 0.0784 m²K/W (HD) (EN 12667)
- Use Class: Class 1 (EN 335)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 30 years

<sup>1)</sup> Only for lacquered versions.

<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.



MOSO® bamboosolida (solid wide board with click system)

MOSO® Bamboo Solida is a large board with a similar appearance to solid wood. It is made out of one solid layer of the extra hard High Density® bamboo, and comes with various surface treatments for an even more wood "look and feel". The boards are equipped with a click system for easy installation.



**HD:** High Density\*, **L:** Lacquered Treffert 110 g/m², **RSL:** Rough Sawn Lacquered Treffert 110 g/m², **WLL:** Wood look Lacquered Treffert 225 g/m², **MB:** Micro Bevel.

Natural	Caramel	Style	Finish	Colour	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m²)
BF-DS210	BF-DS260	HD	L	Transparent	MB	1850x137x14	6	1.521
BF-DS220	BF-DS270	HD	-		MB	1850x137x14	6	1.521
	BF-DS261C-02	HD	RSL	Marble White	MB	1850x135x14	6	1.521
	BF-DS261C-06	HD	RSL	Topaz Brown	MB	1850x135x14	6	1.521
	BF-DS261W-11	HD	WLL	Granite Grey	MB	1830x135x14	6	1.482
	BF-DS261W-12	HD	WLL	Quartz White	MB	1830x135x14	6	1.482
	BF-DS261W-13	HD	WLL	Onyx Beige	MB	1830x135x14	6	1.482

installation summary (full version available on [www.moso.eu/bamboo-solida](http://www.moso.eu/bamboo-solida))

- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this 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 installed floating (max width 8 m, max length 12 m, using expansion gaps) but can also be fully glued to the subfloor (Only with PU glue.)  
► [www.moso.eu/recommended-glue](http://www.moso.eu/recommended-glue)
- This floor is equipped with a click system, you can install the floor without using glue.
- This floor type can be installed – under certain conditions – on floor heating / cooling.  
► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: make sure proper cleaning and maintenance is done. See full version of installation instruction for further details.

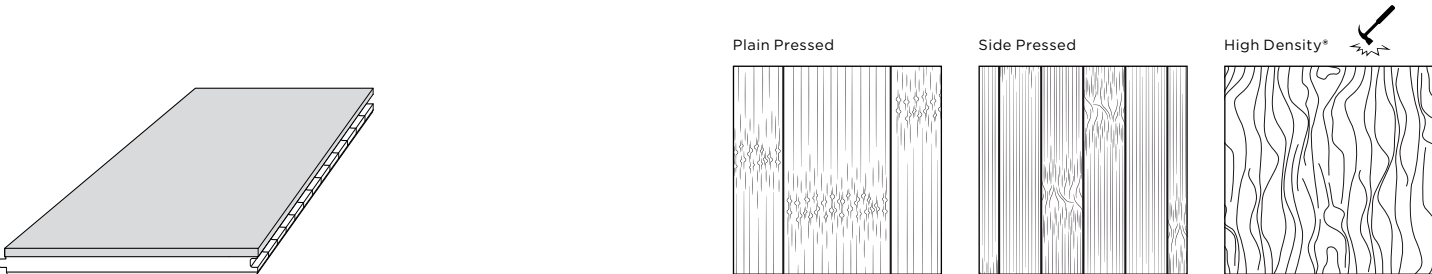
technical characteristics and certifications

- Density: +/- 1050 kg/m³
- Top layer thickness / Wear layer: approx. 4 mm
- Resistance to Indentation - Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire: Class Cfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E1 (< 0.124 mg/m³, EN 717-1), Class E0 (< 0.025 mg/m³) <sup>2)</sup> (HD)
- Thermal conductivity: 0.26 W/mK (EN 12667)
- Thermal resistance: 0.0549 m²K/W (EN 12667)
- Use Class: Class 1 (EN 335)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 30 years

<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.

MOSO® bamboonoble (engineered board)

MOSO® Bamboo Noble is, together with MOSO® Bamboo Plex, the widest flooring board MOSO® has to offer. MOSO® Bamboo Noble consists of 3 layers, with a bamboo top layer. The other layers are made of soft wood, the middle layer being cross pressed to maximise stability. In addition to the normal tongue and groove connection, the boards are also available with a click system which facilitates installation without using glue.



**PP:** Plain Pressed, **SP:** Side Pressed, **HD:** High Density\*, **L:** Lacquered Bona 80 g/m², **O:** Pre-oiled Woca Air Dried (to be re-oiled after installation), **SE:** Sharp Edge, **NB:** "Nano" bevel, approx. 0.1 mm (barely visible), \*) With Click system.

Natural	Caramel	Style	Finish	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m²)
	BF-SW350	PP	L	SE	2200x190x15	8	3.344
	BF-SW450	SP	L	SE	2200x190x15	8	3.344
	BF-SW351	PP	O	SE	2200x190x15	8	3.344
	BF-SW451	SP	O	SE	2200x190x15	8	3.344
BF-SW200*	BF-SW250*	HD	L	NB	1850x142x15	8	2.012
BF-SW320*	BF-SW370*	PP	L	SE	2200x190x15	8	3.344
BF-SW420*	BF-SW470*	SP	L	SE	2200x190x15	8	3.344
BF-SW321*	BF-SW371*	PP	O	SE	2200x190x15	8	3.344
BF-SW421*	BF-SW471*	SP	O	SE	2200x190x15	8	3.344

installation summary (full version available on [www.moso.eu/bamboo-noble](http://www.moso.eu/bamboo-noble))

- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this 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 installed floating (max width 7 m, max length 12 m, using expansion gaps) but can also be fully glued to the subfloor.
- If your Bamboo Noble floor is equipped with a click system, you can install the floor without using glue.
- This floor type can be installed – under certain conditions – on floor heating / cooling.  
► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: make sure proper cleaning and maintenance is done, fitting to the chosen finish. For oiled finish: the floor has to be re-oiled after installation. Polish the oil with a red pad or patina disc (possibly afterwards with white pad).

technical characteristics and certifications

- Density (Toplayer): +/- 700 kg/m³ (SP/PP), +/- 1050 kg/m³ (HD)
- Top layer thickness / Wear layer: approx. 4 mm
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP/PP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP/PP)
- 8% at 20°C and 50% rel. Air Humidity (SP/PP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (SP/PP), ≥ 9.5 kg/mm² (HD) (EN 1534)
- Reaction to fire: Class Dfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E0 (< 0.025 mg/m³) <sup>2)</sup> Class E1 (< 0.124 mg/m³, EN 717-1)
- Slip resistance <sup>1)</sup>: USRV 22 (CEN/TS 15676) / R 10 (DIN 51130)
- Thermal conductivity: 0.13 W/mK (SP/PP), 0.14 W/mK (HD) (EN 12667)
- Thermal resistance: 0.1152 m²K/W (SP/PP), 0.1074 m²K/W (HD) (EN 12667)
- Contribution LEED BD+C - v4: EQ2 v2009: MR 6, IEQ 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 5 (HD)
- Guarantee: 30 years

<sup>1)</sup> Only for lacquered versions.  
<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.



# MOSO®

# Bamboo Flooring

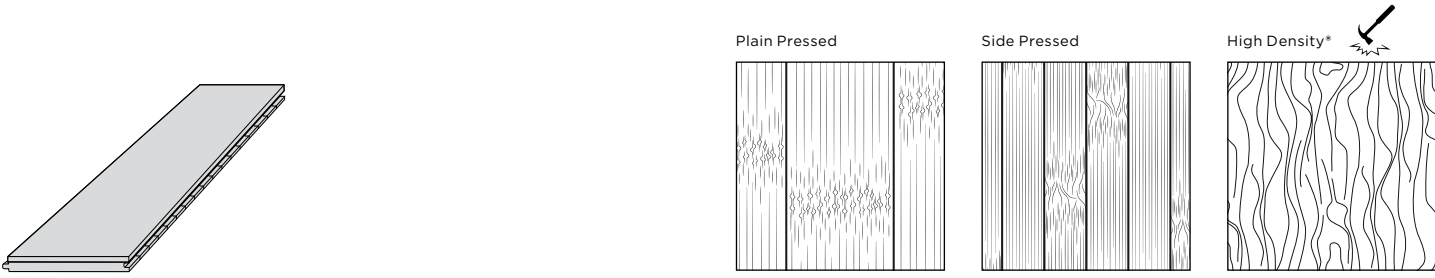
# Eternal Collection

The Eternal Collection offers the **strongest** and most **robust** floors in the MOSO® assortment. Especially for those looking for flooring that will last a **lifetime**, flooring from the Eternal Collection will be the best choice. These floors are so **strong** that they can be installed in the most demanding projects, such as **public buildings, offices** and **restaurants**, but are also suitable for residential applications.

**bamboosupreme**  
**bambooforest**  
**bambooindustriale**

## MOSO® bamboosupreme (2-ply flooring)

MOSO® Bamboo Supreme is made from two layers of bamboo, with a 4 mm toplayer and a cross pressed bamboo backing. The total thickness is 10 mm which is relatively thin compared to other wood floors. However, as with any wood species the basic rule is: the thicker, the less stable the wood (shrink/swell). The 10 mm thickness and 4 mm toplayer is an ideal compromise between durability and stability and therefore offers a perfect solution for heavy duty conditions, like installation on floor heating and/or installation in heavy traffic areas.



**PP:** Plain Pressed, **SP:** Side Pressed, **HD:** High Density\*, **L:** Lacquered Bona 125 g/m², **LN:** Lacquered Bona Naturale (extra matt) 225 g/m², **O:** Pre-oiled Woca Air Dried (to be re-oiled after installation), **SE:** Sharp Edge, **NB:** "Nano" bevel, approx. 0,1 mm (barely visible).

Natural	Caramel	Style	Finish	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m³)
	BF-LA451	PP	-	SE	970x95x10	36	3.317
	BF-LA471	SP	-	SE	970x95x10	36	3.317
BF-LA403	BF-LA453	PP	O	SE	970x95x10	36	3.317
BF-LA423	BF-LA473	SP	O	SE	970x95x10	36	3.317
BF-DT403	BF-DT453	HD	O	NB	920x96x10	24	2.120
BF-LA409	BF-LA459	PP	L	SE	970x95x10	36	3.317
BF-LA429	BF-LA479	SP	L	SE	970x95x10	36	3.317
BF-DT409	BF-DT459	HD	LN	NB	920x96x10	24	2.120

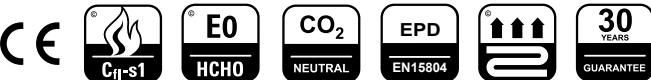
### installation summary (full version available on [www.moso.eu/bamboo-supreme](http://www.moso.eu/bamboo-supreme))

- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this 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.
- This floor type can be installed - under certain conditions - on floor heating / cooling. ► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: make sure proper cleaning and maintenance is done, fitting to the chosen finish. For oiled finish: the floor has to be re-oiled after installation. Polish the oil with a red pad or patina disc (possibly afterwards with white pad).

### technical characteristics and certifications

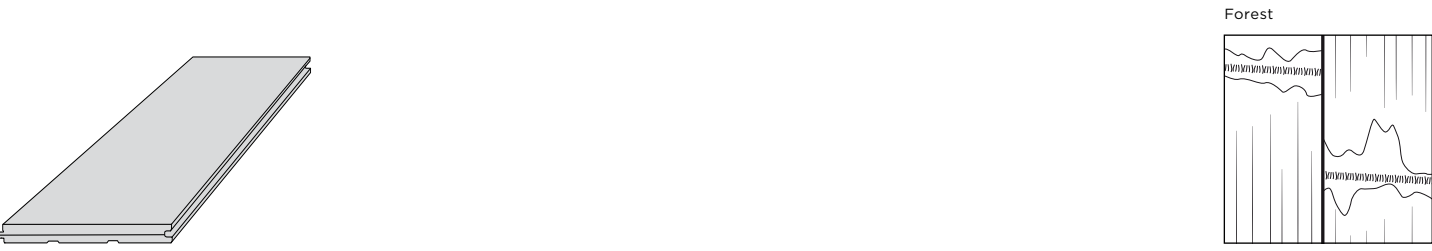
- Density (Toplayer): +/- 700 kg/m³ (SP/PP), +/- 1050 kg/m³ (HD)
- Top layer thickness / Wear layer: approx. 4 mm
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP/PP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP/PP) 8% at 20°C and 50% rel. Air Humidity (SP/PP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (SP/PP), ≥ 9.5 kg/mm² (HD) (EN 1534)
- Wear resistance <sup>1)</sup>: USRV 22 (SP/PP), USRV 26 (HD) (CEN/TS 15676) / R10 (DIN 51130), ≥ 7000 Revolutions (WR3) (HD) (EN 13696)
- Reaction to fire: Class Cfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E1 (< 0.124 mg/m³, EN 717-1), Class E0 (< 0.025 mg/m³) <sup>2)</sup> (HD)
- Slip resistance <sup>1)</sup>: USRV 22 (SP/PP), USRV 26 (HD) (CEN/TS 15676) / R10 (DIN 51130)
- Thermal conductivity: 0.17 W/mK (SP/PP), 0.21 W/mK (HD) (EN 12667)
- Thermal resistance: 0.0588 m²K/W (SP/PP), 0.0471 m²K/W (HD) (EN 12667)
- Use Class: Class 1 (EN 335)
- Critical radiant flux: Class 1 (SP/PP), Class 1 (HD) (ASTM E 648)
- CO<sub>2</sub> neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 30 years

<sup>1)</sup> Only for lacquered versions.  
<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.



MOSO® bambooforest (solid wide board)

MOSO® Bamboo Forest is the most authentic bamboo floor imaginable. For this unique product the bamboo stem is flattened with a special process to create the top layer of a three layer solid bamboo floor board. The result is a very robust floor with the natural beauty and original look of the bamboo plant. The surface of the floor consists of the stony bark of the bamboo stem, which is so hard and wear resistant that no oil or lacquer finish is required.



W: Waxed, B: Bevel

Product Code	Finish	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m²)
BF-FBS400	W	B	1210x125x18	10	1.513

installation summary (full version available on [www.moso.eu/bamboo-forest](http://www.moso.eu/bamboo-forest))

- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this 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 and can also be installed floating (max width 6 m, max length 12 m, using expansion gaps).
- 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 y >=0.5 (3 days balanced at 23 degrees Celsius/50% Air Humidity)Please ask your glue supplier for more information.
- This floor type can be installed – under certain conditions – on floor heating / cooling. ► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: the surface of the MOSO® Bamboo Forest is the bark/skin of the bamboo pole and is very hard and dense. To protect it (and especially to close the gaps at the bevel) a floor wax can be applied.

technical characteristics and certifications

- Density (Product): 850 kg/m³
- Top layer thickness / Wear layer: approx. 6 mm
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity
- 8% at 20°C and 50% rel. Air Humidity
- Resistance to Indentation - Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire: Class Cfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E0 (< 0.025 mg/m³) <sup>2)</sup> Class E1 (< 0.124 mg/m³, EN 717-1)
- Thermal conductivity: 0.21 W/mK (EN 12667)
- Thermal resistance: 0.0872 m²K/W (EN 12667)
- Use Class: Class 1 (EN 335)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Nordic Swan Ecolabelling: Licence number 2029 0014 (only in combination with FSC®)
- Guarantee: 30 years

<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.

MOSO® bambooindustriale (industrial look)

MOSO® Bamboo Industriale consists of small floor ‘boards’ made from short solid bamboo strips, creating the specific industrial look. The ‘boards’ are in fact blocks of strips bundled together with tape. The floor installer glues them on the subfloor, sands off the tape, fills the gaps and finishes the surface. Being made of such small strips, the floor is very stable – making it the perfect solution for application on floor heating. This floor has the thickest wear layer of all MOSO® floors: up to 15 mm!



SP: Side Pressed, HD: High Density\*, SE: Sharp Edge

Natural	Caramel	Style	Finish	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m²)
BF-PR300	BF-PR350	SP	-	SE	280x140x10	96	3.763
BF-PR100	BF-PR150	SP	-	SE	280x140x15	60	2.352
BF-PR1000	BF-PR1050	HD	-	SE	300x200x10	32	1.920

installation summary

(full version available on [www.moso.eu/bamboo-industriale](http://www.moso.eu/bamboo-industriale))

- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this 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 y >=0.5 (3 days balanced at 23 degrees Celsius/50% Air Humidity)Please ask your glue supplier for more information.
- After the glue has hardened, the floor can be sanded, filled (with a mixture of sanding dust and floor filler) and finished (with floor lacquer or oil).
- This floor type can be installed – under certain conditions – on floor heating / cooling. ► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: make sure proper cleaning and maintenance is done, fitting to the chosen finish. For oiled finish: the floor has to be oiled after installation. Polish the oil with a red pad or patina disc (possibly afterwards with white pad).
- **Attention:** the width of the individual bamboo strips can vary between approx. 4 and 8mm (High Density\* 13-14mm). MOSO® guarantees that within 1 delivery the variation in strip width is limited.

technical characteristics and certifications

- Density (Product): +/- 700 kg/m³ (SP), +/- 1050 kg/m³ (HD)
- Top layer thickness / Wear layer: approx. 10 mm
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP)
- 8% at 20°C and 50% rel. Air Humidity (SP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (SP), ≥ 9.5 kg/mm² (HD) (EN 1534)
- Reaction to fire: Class Cfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E0 (< 0.025 mg/m³) <sup>2)</sup> Class E1 (< 0.124 mg/m³, EN 717-1)
- Thermal conductivity: 0.17 W/mK (SP), 0.26 W/mK (HD) (EN 12667)
- Thermal resistance: 0.0588 m²K/W (SP), 0.0392 m²K/W (HD) (EN 12667)
- Use Class: Class 1 (EN 335)
- Critical radiant flux: Class 1 (SP), Class 1 (HD) (ASTM E 648)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 30 years

<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.

# MOSO®

## Bamboo Flooring

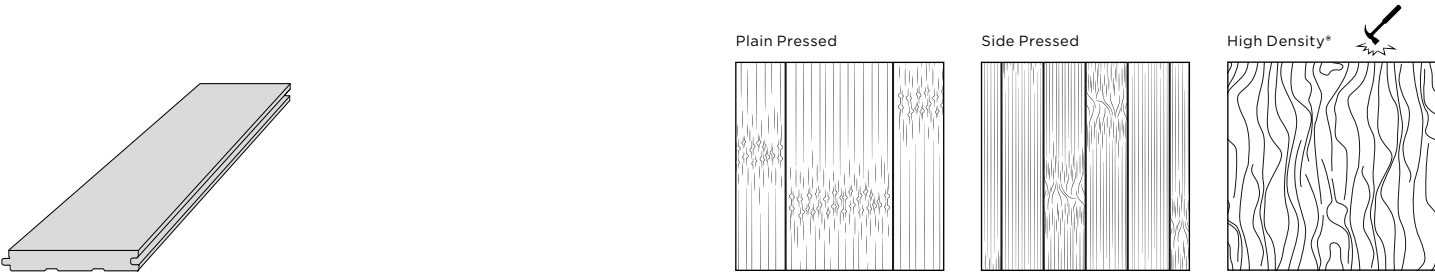
### Dynamic Collection

The Dynamic Collection offers an **economical** choice for customers who want natural flooring that is **easy to install**. It does not mean that these floors are of a lesser quality or offer less choice. In fact, the Dynamic Collection provides the **widest range** of possibilities in colour, patterns, finishes, and dimensions, matching the latest trends.

purebamboo  
topbamboo  
flexbamboo

## MOSO® purebamboo (solid strip)

MOSO® Purebamboo is made entirely of solid bamboo, either with strips pressed together horizontally (Plain Pressed), vertically (Side Pressed) or compressed (High Density®). This floor type is a good solution when an economical but high performance bamboo floor is required. Purebamboo (in Plain Pressed version) was the first bamboo floor ever – all other bamboo floors have been derived from this classic version.



PP: Plain Pressed, SP: Side Pressed, HD: High Density\*, L: Lacquered Treffert 80 g/m², SE: Sharp Edge, MB: Micro Bevel  
\*) Top layer 6mm.

Natural	Caramel	Style	Finish	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m²)
	BF-LA560	SP	-	SE	960x96x15*	24	2.212
	BF-LA760	PP	-	SE	960x96x15	24	2.212
BF-LA610	BF-LA660	SP	L	MB	960x96x15*	24	2.212
BF-LA810	BF-LA860	PP	L	MB	960x96x15	24	2.212
BF-DS110	BF-DS160	HD	L	MB	915x96x12	24	2.108

### installation summary (full version available on [www.moso.eu/purebamboo](http://www.moso.eu/purebamboo))

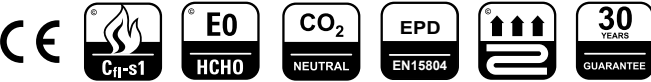
- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this should be flat/clean/stable and should not exceed the maximum allowed moisture content (for example 1.8% for sand cement).
- The floor should be fully glued and can also be installed floating (max width 5 m, max length 12 m, using expansion gaps).
- 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.
- This floor type can be installed – under certain conditions – on floor heating / cooling. ► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: make sure proper cleaning and maintenance is done, fitting to the chosen finish. For oiled finish: the floor has to be re-oiled after installation. Polish the oil with a red pad or patina disc (possibly afterwards with white pad).

### technical characteristics and certifications

- Density (Product): +/- 700 kg/m³ (SP/PP), +/- 1050 kg/m³ (HD)
- Top layer thickness / Wear layer: approx. 5 mm (PP), approx. 6 mm (SP), approx. 3 mm (HD)
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP/PP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP/PP)
- 8% at 20°C and 50% rel. Air Humidity (SP/PP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (SP/PP), ≥ 9.5 kg/mm² (HD) (EN 1534)
- Reaction to fire: Class Cfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E1 (< 0.124 mg/m³, EN 717-1), Class E0 (< 0.025 mg/m³) <sup>2)</sup> (HD)
- Slip resistance <sup>1)</sup>: USRV 31 (CEN/TS 15676) / R 10 (DIN 51130)
- Thermal conductivity: 0.17 W/mK (SP/PP), 0.26 W/mK (HD) (EN 12667)
- Thermal resistance: 0.0882 m²K/W (SP/PP), 0.0471 m²K/W (HD) (EN 12667)
- Use Class: Class 1 (EN 335)
- Critical radiant flux: Class 1 (ASTM E 648)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 30 years

<sup>1)</sup> Only for lacquered versions.

<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.





MOSO® topbamboo (engineered board with click system )

MOSO® Topbamboo consists of a top layer of bamboo combined with a HDF (High Density Fibre board) as the core and a softwood backing. Because of this construction, the product is very stable, while the click system, makes it very easy to install (no glue needed). Topbamboo is available in a large variety of fashionable colours and finishes, including brushed and stained versions.



**SP:** Side Pressed, **HD:** High Density\*, **L:** Lacquered Treffert 80 g/m², **LA:** Lacquered Antique Treffert 80 g/m², **BL:** Brushed Lacquered Treffert 80 g/m², **BSL:** Brushed Stained-Lacquered Treffert 80 g/m², **MB:** Micro Bevel  
\*) Due to the characteristics of the High Density\* bamboo, the 'depth' of the brushing will be different from one board to another. This creates a very natural effect.

Natural	Caramel	Style	Finish	Colour	Edges	Dimensions (mm)	Box Content (pcs.)	Box Content (m²)
	BF-SW1151-L01	SP	L	Transparent	MB	960x128x10	12	1.475
	BF-SW1151B-L01	SP	BL	Transparent	MB	960x128x10	12	1.475
	BF-SW1151B-L02	SP	BSL	White	MB	960x128x10	12	1.475
	BF-SW1151B-L06	SP	BSL	Colonial	MB	960x128x10	12	1.475
BF-SW1210-L01	BF-SW1260-L01	HD	L	Transparent	MB	920x125x10	12	1.380
	BF-SW1260A-L02	HD	LA	White	MB	920x125x10	12	1.380
	BF-SW1260A-L08	HD	LA	Grey	MB	920x125x10	12	1.380
	BF-SW1260B-L01	HD	BL*	Transparent	MB	920x125x10	12	1.380
	BF-SW1260B-L02	HD	BSL*	White	MB	920x125x10	12	1.380

installation summary (full version available on [www.moso.eu/topbamboo](http://www.moso.eu/topbamboo))

- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this 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 installed floating (max width 7 m, max length 12 m, using expansion gaps) but can also be fully glued to the subfloor.
- This floor is equipped with a click system, you can install the floor without using glue.
- This floor type can be installed – under certain conditions – on floor heating / cooling. ► [www.moso.eu/floorheating-cooling](http://www.moso.eu/floorheating-cooling)
- After installation: make sure proper cleaning and maintenance is done. See full version of installation instruction for further details.

technical characteristics and certifications

- Density (Toplayer): +/- 700 kg/m³ (SP), +/- 1050 kg/m³ (HD)
- Top layer thickness / Wear layer: approx. 2.5 mm
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (SP), ≥ 9.5 kg/mm² (HD) (EN 1534)
- Resistance to Impact (Elasticity): > 1000 (EC1) (SP/PP), > 1400 (EC3) (HD) (EN 438-2)
- Wear resistance <sup>1)</sup>: ≥ 1500 Revolutions (WRO) (EN 13696)
- Reaction to fire: Class Cfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E0 (< 0.025 mg/m³) <sup>2)</sup> Class E1 (< 0.124 mg/m³, EN 717-1)
- Slip resistance <sup>1)</sup>: USRV 31 (Smooth) / USRV 28 (Brushed) (CEN/TS 15676)
- R 10 (Smooth) / R 11 (Brushed) (DIN 51130)
- Thermal conductivity: 0.17 W/mK (SP), 0.18 W/mK (HD) (EN 12667)
- Thermal resistance: 0.0591 m²K/W (SP), 0.0542 m²K/W (HD) (EN 12667)
- Use Class: Class 1 (EN 335)
- Contribution LEED BD+C - v4: EQ2 / v2009: MR 6, IEQ 4.3
- Contribution BREEAM: HEA 2, MAT 1, MAT 5 (HD)
- Guarantee: 10 years

<sup>1)</sup> Only for lacquered versions.  
<sup>2)</sup> E0 Class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product has a very low emission, not detectable (n.d.) emission or is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 Class according EN 717-1.

MOSO® flexbamboo (latex backed flooring on roll)

MOSO® Flexbamboo is made by glueing thin bamboo strips onto a flexible latex backing. The Flexbamboo comes in rolls of 20 linear meters. Due to the latex backing it has a great sound absorption and it is very comfortable to walk on. Flexbamboo comes unfinished or finished with a high quality LED-dried oil in various trendy colours.



**PP:** Plain Pressed, **O**=Oiled, **SO**=Stained-oiled

Caramel	Style	Finish	Colour	Thickness (mm)	Strip dimensions (mm)	Roll Dimensions (m)
MPCLC17-200-21	PP	-	Caramel	3	2x17	2x20
MPCLC17-200-91	PP	O	Caramel	3	2x17	2x20
MPCLC17-200-92	PP	SO	Misty-White	3	2x17	2x20
MPCLC17-200-94	PP	SO	Walnut	3	2x17	2x20
MPCLC17-200-95	PP	SO	Silver-Grey	3	2x17	2x20
MPCLC17-200-96	PP	SO	Ebony	3	2x17	2x20

installation summary (full version available on [www.moso.eu/flexbamboo](http://www.moso.eu/flexbamboo))

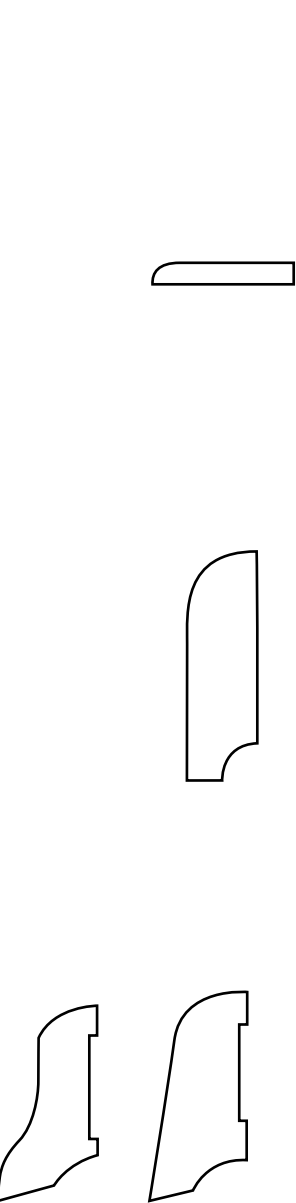
- Check room climate conditions (room temp. 18-21°C, air humidity 40-65%).
- Check subfloor: this should be flat/clean/stable and should not exceed the maximum allowed moisture content (for example 1.8% for sand cement).
- The floor should be fully glued.
- ► [www.moso.eu/recommended-glue](http://www.moso.eu/recommended-glue)
- This floor type can not be installed on floor heating / cooling systems.
- After installation: make sure proper cleaning and maintenance is done, fitting to the chosen finish.

technical characteristics and certifications

- Density (Toplayer): +/- 700 kg/m³
- Top layer thickness / Wear layer: approx. 2 mm
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity
- Resistance to Indentation - Brinell Hardness: ≥ 3 kg/mm² (EN 1534)
- Thickness swelling: ≤ 3% (EN 13329)
- Resistance to Impact (Elasticity): > 1000 (EC1) (EN 438-2)
- Reaction to fire: Class Dfl-s1 (EN 13501-1)
- Formaldehyde emission: Class E1 (< 0,124 mg/m³) (EN 717-1)
- Thermal conductivity: 0.09 W/mK (EN 12667)
- Thermal resistance: 0.0318 m²K/W (EN 12667)
- Impact sound insulation: ΔL<sub>w</sub> 6 dB, ΔL<sub>w</sub> 15 dB (EN ISO 717-2)
- Use Class: Class 1 (EN 335)
- Contribution LEED BD+C - v4: EQ2
- v2009: MR 6, IEQ 4.3
- Contribution BREEAM: HEA 2
- Guarantee: 10 years

MOSO® bamboo flooring accessories

MOSO® offers a full array of bamboo accessories for a sophisticated finishing touch to the MOSO® floor of your choice.



skirting

MOSO® supplies both skirting strips (to be nailed on the floor) and skirting boards (to be screwed on the wall). The skirting is available in both unfinished and pre finished.

skirting strip

PP: Plain Pressed, HD: High Density\*, L: Lacquered, SL: Stain-Lacquered  
\*) Colours available consistent with flooring assortment.

Natural	Caramel	Style	Finish	Dimensions (mm)
BS-F100	BS-F150	PP	-	2000x25x5
	BS-F150-*	PP	SL	2000x25x5
BS-F200	BS-F250	PP	L	2000x25x5
BS-FDT201	BS-FDT251	HD	L	1830x25x5

skirting board

PP: Plain Pressed, SP: Side Pressed, HD: High Density\*, L: Lacquered, SL: Stain-Lacquered  
\*) Colours available consistent with flooring assortment.

Natural	Caramel	Style	Finish	Dimensions (mm)
BS-DT100-L	BS-DT150-L	HD	L	1830x68x15
	BS-DT150-L02	HD	SL WHITE	1830x68x15
BS-FB100		FOREST	-	1200x60x18
BS-H200	BS-H250	SP	-	2000x50x15
BS-H300	BS-H350	PP	-	2000x50x15
BS-H200-L	BS-H250-L	SP	L	2000x50x15
BS-H200-*	BS-H250-*	SP	SL	2000x50x15
BS-H300-L	BS-H350-L	PP	L	2000x50x15

veneered skirting board

SP: Side Pressed, L: Lacquered

Natural	Caramel	Style	Finish	Dimensions (mm)
BS-P40-22-NSFL	BS-P40-22-CSFL	SP	L	2500x40x22
BS-P45-22-NSFL	BS-P45-22-CSFL	SP	L	2500x45x22

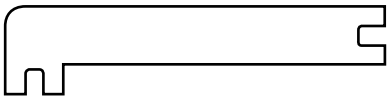
installation

- Skirting strip: Nailed on floor
- Skirting board: Screwed on wall

application

- Skirting strip: Apply to floors with fixed installation
- Skirting board: Apply to floors with floating installation and fixed installation

MOSO® bamboo flooring accessories



stair nose

PP: Plain Pressed, SP: Side Pressed, HD: High Density\*, L: Lacquered  
\*) Fitting to Bamboo Supreme, \*\*) Fitting to Purebamboo and Bamboo Elite, \*\*\*) Fitting to Bamboo Elite

Natural	Caramel	Style	Thickness	Finish	Dimensions (mm)
	BN-PP360*	PP	10mm	-	2000x50x10/15
BN-FB100		FOREST	18mm	-	1200x80x18/25
	BN-SP360*	SP	10mm	-	2000x50x10/15
BN-PP319*	BN-PP369*	PP	10mm	L	2000x50x10/15
BN-SP319*	BN-SP369*	SP	10mm	L	2000x50x10/15
BN-DT319*	BN-DT369*	HD	10mm	L	1830x50x10/15
	BN-PP350**	PP	15mm	-	2000x55x15/20
	BN-SP350**	SP	15mm	-	2000x55x15/20
BN-PP309**	BN-PP359**	PP	15mm	L	2000x55x15/20
BN-SP309**	BN-SP359**	SP	15mm	L	2000x55x15/20
	BN-SP370**	SP	15mm	-	2000x55x15/20
BN-SP329**	BN-SP379**	SP	15mm	L	2000x55x15/20
BN-DT519***	BN-DT569***	HD	13mm	L	1830x55x13/18

door stopper

L: Lacquered

Natural	Caramel	Finish	Dimensions (mm)
DS100	DS150	L	34x32 (diam. x height)

radiator pipe rosette

L: Lacquered

Natural	Caramel	Hole Diameter	Finish	Dimensions (mm)
BR100-16	BR150-16	16mm	L	50x50x18
BR100-22	BR150-22	22mm	L	55x55x20

maintenance and repair

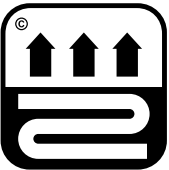
\*) Cleaner / mop / pad, \*\*) Maintenance Oil / Woodcleaner / Natural Soap + vaporizer, \*\*\*) For stained Unibamboo / Topbamboo / Bamboo Solida

Product Code	Brand	Product
PF-BONABOX	Bona	Maintenance box*
PF-BONA-REFRESH	Bona	Polish
PF-BONA-CLEAN	Bona	Cleaner
PF-WOCABOX	Woca	Maintenance box**
OIL-WOCA-002	Woca	Maintenance oil
RM-xx		Repair marker***



# MOSO® bamboo flooring floor heating / cooling

Attention: by installing a bamboo (or any other natural material) floor onto floor heating your floor will dry out more than in normal circumstances and can therefore shrink. This can lead to seams between the boards, cupping and even small cracks on the surface. To minimize this, you need to create optimal room conditions: a temperature of approx.



18-21°C and a 40-65% relative air humidity (use a hygrometer + thermometer to monitor this).

Not all MOSO® floor types can be installed on a floor heating/cooling system. In the installation instruction or the datasheet of your MOSO® floor you will find whether it is suitable for installation on floor heating or not. If your selected MOSO® floor is suitable, please make sure the following conditions are met:

- The installation can only take place after determining the moisture content of the subfloor by means of an acceptable concrete moisture (Calcium-carbide method) test. This value should be below the values as indicated in the installation instruction.
- MOSO® flooring can only be installed on electrical floor heating systems when the capacity is lower than 80 W/m². On top of the electrical heating elements there should be a heat distributing layer of at least 4-6 mm (for example levelling compound).
- MOSO® flooring can only be installed on floor cooling systems when they are equipped with an anti-condensation device.
- The heating/cooling system should be placed throughout the whole room (at least 95% coverage of floor area).
- The slab should at least be 50 mm thick (for water systems, minimal distance from the surface to the tubes: 35 mm).
- The flooring should be fully glued to the subfloor, with a glue which is suitable for using on a floor heating system and must be applied according to the manufacturer's instructions.
- Temperature measurement 'probes' should be built in on each heating loop.
- During installation of the flooring the heating system should be turned off and the subfloor should be cooled off.
- The heating system should not be used until 2 weeks after installation. The system should be warmed up slowly and the surface temperature should never exceed 29°C.
- For both cooling off and heating up we advise to do so in small steps of approx. 3°C per 48 hours.

- Make sure the climate in the room is controlled well. Optimal room conditions are a temperature of approx. 18-21°C and a 40-65% relative air humidity (use a hygrometer + thermometer to monitor this).
- If a carpet (or other big object) is placed onto the floor during heating the above mentioned phenomena (seams between the boards, cupping and even small cracks on the surface) can be expected in a more severe extent (heat build-up).
- Whilst all due care is taken to ensure the accuracy of these instructions, individual circumstances (location, sub floor and installation procedures) may vary and are beyond the manufacturer 's control. In case of doubt, therefore, consult your MOSO® dealer.

# MOSO® bamboo flooring recommended glue

Check complete MOSO® installation instruction of the products and follow the advice of the glue supplier.

## recommended glue for MOSO® Bamboo Flooring\*

\*) Not for Unibamboo / Flexbamboo,\*\*) Not for Bamboo Industriale, \*\*\*) Not for Bamboo Forest.

Brand	Product
Bona	R770
	R850**
Forbo	144 Euromix PU
	157 Eurowood MS Hard Elastic
	158 Eurowood MS Hard Elastic Sepia
Stauf	Stauf SPU-460
	Stauf SPU-570
	Stauf PUK-445
	Stauf PUK-455
Wakol	PU210
	PU225
	PU350
	MS260***

## MOSO® Bamboo Solida

For Bamboo Solida we recommend to use PU glue only.

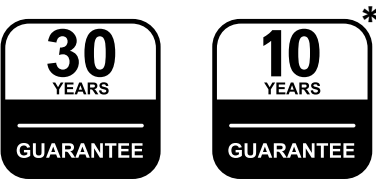
Brand	Product
Bona	R770
Forbo	144 Euromix PU
Stauf	Stauf SPU-460
	Stauf SPU-570
	Stauf PUK-445
	Stauf PUK-455
Wakol	PU210
	PU225
	PU350

## MOSO® Flexbamboo

Brand	Product
Uzin	U 3000

# MOSO® bamboo flooring warranty

MOSO® International BV guarantees the construction and the glueing of the individual layers for a period of up to 30 years\* from the date of purchase in accordance with the following provisions:



- This warranty does not cover damage caused by misuse, accidents, insect infestation, force majeure and damage caused by other, in normal residential unusual, circumstances.
- Also not covered are purely visual impairments such as imprints, joints, discoloration by light, seasonal climate-related deformation or wear of the surface coating. Damage resulting from improper installation, maintenance, cleaning or maintenance of the surface coating, mechanical or chemical damage or damage caused by moisture effects are also excluded from this warranty.
- This warranty statement supersedes all previous statements; the granting of the manufacturer's warranty applies only to the current version.

### scope

- The guarantee extends to A-grade products and to the exclusive use in normal used spaces.
- The guarantee applies only to the original purchaser and can not be transferred.

### warranty conditions

To make use of the warranty the following conditions must be fulfilled.

- Proper Installation: Please read carefully, before laying the floor, our installation instructions. You can find these in any original package and in addition on the internet at [www.moso.eu/documentation](http://www.moso.eu/documentation). In particular, you should pay attention to the moisture content of the sub floor and to the conditions for laying on floor heating. No claims can be made in case of improper installation!
- Proper care and cleaning: Important information for optimal cleaning and care can be found in each of the original package or on the Internet at [www.moso.eu/documentation](http://www.moso.eu/documentation). No claims can be made in case of improper care and or cleaning!

- Proper maintenance of the coating: The wear of the coating is not part of the warranty. If the coating surface shows signs of wear, in whole or in part, it must be timely renewed in order to protect the material. No claims can be made in case of improper maintenance of the surface coating.

### warranty

- This warranty applies in addition to the normal legal rights of the buyer, including the rights of the buyer against the seller.
- If a claim is granted before laying the material, faulty planks are replaced free of charge. No claims can be made after laying the material if the buyer could have detected the defects before installation. This warranty does not cover damage that was caused by third parties (eg transport damage).
- If defects occur after installation, MOSO International BV reserves the right to either repair the defect or to offer material free of charge to the buyer.
- If the defective product is no longer in the product range, an equivalent from the current range will be supplied.
- A claim does not lead to an extension of the warranty period.
- The cost for the replacement of material and other charges are not included in the warranty.

### settlement of the guarantee

- The claim must be made in writing, within 30 days, to the MOSO® dealer / seller, a MOSO® subsidiary or directly to MOSO International BV, Adam Smithweg 2, 1689 ZW Zwaag, the Netherlands.
- MOSO International BV reserves the right to check the claimed damage, after appointment, on site.

\*) Topbamboo and Flexbamboo:  
10 years guarantee.



# MOSO®

## Bamboo Panels, Veneer & Beams

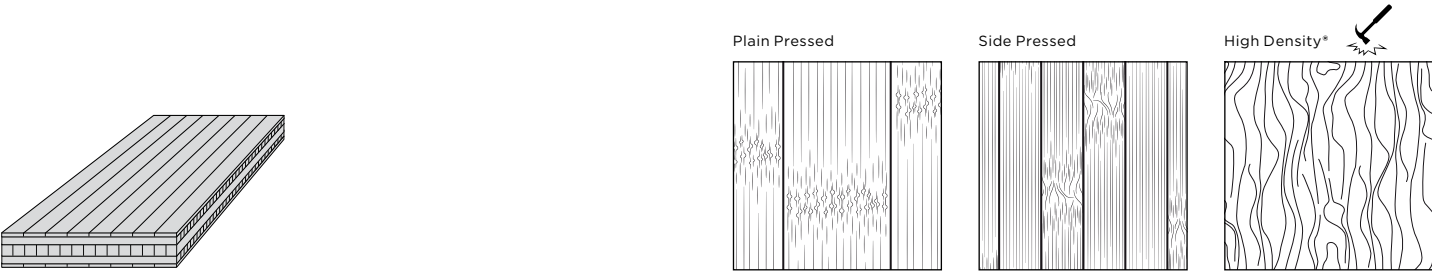
### Solid Collection

MOSO® offers a very **broad assortment** of bamboo **panels** and **beams** in various **sizes, thickness, colours** and **textures**. These products have been used **worldwide** in **various applications** including window frames, doors, stairs, curtain walls, furniture and kitchens.

**bamboo** solid panels  
**bamboo** solid beams

## MOSO® bamboo solid panels

The MOSO® Bamboo Solid Panel consists of multiple layers of bamboo, available in many variations with respect to size, thickness, configuration, style and colour. These bamboo panels are especially interesting in those applications where the side of the panel remains visible, such as steps of a staircase, furniture and kitchen work tops.



**PP:** Plain Pressed, **SP:** Side Pressed, **HD:** High Density\* (outer layers). \*) Mix of natural and caramel strips, \*\*) High Density\* outer layers fingerjointed in length.

Natural	Caramel	Tiger*	Style	Thickness (mm)	Construction (mm)	Dimensions (mm)
BP-MP1230	BP-MP1280		PP	16	3.5-9-3.5	2440x1220
BP-MP1210	BP-MP1260		PP	20	4-12-4	2440x1220
BP-5P131	BP-5P181		PP	20	5x4	2440x1220
BP-MP1215	BP-MP1265		PP	25	4-17-4	2440x1220
BP-MP1240	BP-MP1290		PP	30	5-20-5	2440x1220
BP-5P105	BP-5P155		PP	40	4-8-16-8-4	2440x1220
BP-5P140	BP-5P190		PP	40	4-6-20-6-4	3000x700
BP-5P145	BP-5P195		PP	40	4-6-20-6-4	4000x620
BP-MP400	BP-MP450		SP	7	2-3-2	2440x1220
BP-MP1430	BP-MP1480		SP	16	3.5-9-3.5	2440x1220
BP-SP800	BP-SP850		SP	19	1x19	2440x1220
BP-MP1410	BP-MP1460		SP	20	4-12-4	2440x1220
BP-MP1415	BP-MP1465		SP	25	4-17-4	2440x1220
BP-MP1440	BP-MP1490		SP	30	5-20-5	2440x1220
BP-5P205	BP-5P255		SP	40	4-8-16-8-4	2440x1220
BP-5P240	BP-5P290		SP	40	4-6-20-6-4	3000x700
BP-5P245	BP-5P295		SP	40	4-6-20-6-4	4000x620
BP-DT1000	BP-DT1050	BP-DT1050-NP	HD	20	4-12-4	2440x1220
BP-DT5000	BP-DT5050		HD	38	3-6-20-6-3	2440x1220
	BP-DT6050**		HD	38	3-6-20-6-3	3100x700
	BF-DT6060**		HD	38	3-6-20-6-3	4000x700

### processing instructions summary

(full version available on [www.moso.eu/solid-panel](http://www.moso.eu/solid-panel))

- Advised room conditions: temperature approx. 21°C. Air humidity 40-65%.
- The MOSO® 1-ply panels and MOSO® solid multilayer panels are oversized in length and width and are not calibrated (fine sanded).
- The MOSO® 1-ply panels and MOSO® solid multilayer panels have an A- and B-side. The backside (B) generally contains more colour variation than the surface side (A) and can show small seams between the strips. The backside is marked with a pencil line or sticker.
- The inner layers of MOSO® solid (multi-layer) panels consist of multiple, separated cross segments, which create some small voids in these layers. This construction optimizes the stability of the panels. The voids have to be filled during processing.
- The surface of the solid High Density\* panels may contain small seams and open pores. Depending on the finishing- and customer requirements, the surface can be closed using a (colour matching) filler.



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### technical characteristics and certifications

- Density (Toplayer): +/- 700 kg/m<sup>3</sup> (SP/PP), +/- 1050 kg/m<sup>3</sup> (HD)
- Top layer thickness / Wear layer: 3,5-5 mm <sup>1)</sup> (SP/PP), 3-4 mm <sup>1)</sup> (HD)
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP/PP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP/PP)
- 8% at 20°C and 50% rel. Air Humidity (SP/PP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm<sup>2</sup> (SP/PP), ≥ 9.5 kg/mm<sup>2</sup> (HD) (EN 1534)
- Reaction to fire: Class D-s1-d0 <sup>2)</sup> (SP/PP) (EN 13501-1)
- Formaldehyde emission: Class E1 (< 0.124 mg/m<sup>3</sup>, EN 717-1) / Class E0 (< 0.025 mg/m<sup>3</sup>) <sup>3)</sup>
- Modulus of Elasticity: 4530 N/mm<sup>2</sup> (40mm) <sup>4)</sup> (mean value - EN 789)
- Glue: D3 water resistant
- CO<sub>2</sub> neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 (if requested as E0)
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)

<sup>1)</sup> Depending on thickness version.

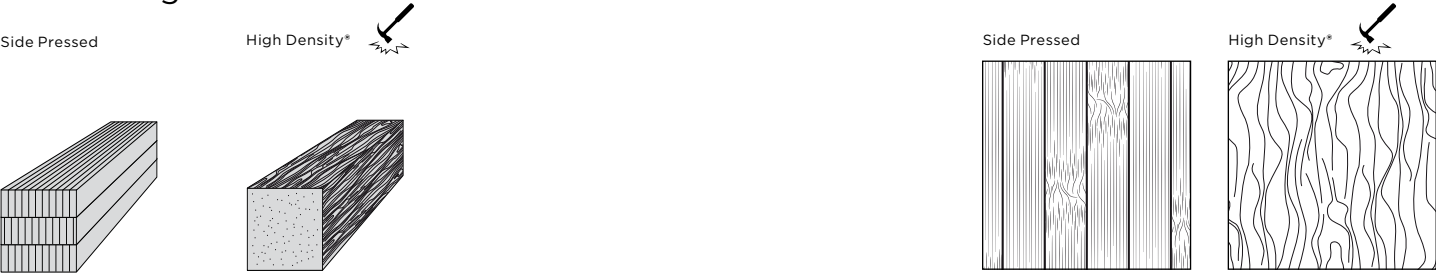
<sup>2)</sup> For 40mm version.

<sup>3)</sup> Available on request - E0 class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 class according EN 717-1.

<sup>4)</sup> Modulus of Elasticity of other panels available on request.

# MOSO® bamboo solid beams (indoor)

With the introduction of the MOSO® Bamboo Solid Beam, bamboo can now also be applied in several (semi) structural applications such as window- and doorframes, where typically (expensive) scarce tropical hardwood is used. Unlike hardwood, the MOSO® Bamboo Solid Beam is a very regular material in terms of stability and structure and is therefore easy to process. The standard length of the beam is 2440mm but by using finger joints any length can be created. The MOSO® Beams are available in the colours caramel and natural, in both the extra hard High Density® version (tropical hardwood look - random line pattern) and the Side / Plain Pressed version (regular line pattern with bamboo nodes visible). Especially in the latter version, due to the construction in various layers, very beautiful line patterns come out after milling.



SP: Side Pressed, HD: High Density\*  
\*) Attention: this product is ‘fine sawn’, so a rough, irregular surface is normal. The final (smooth) look will be obtained after processing.

Natural	Caramel	Style	Construction (mm)	Dimensions (mm)
BL-200-244	BL-250-244	SP	3x18.3	2440x55x55
	BL-260-244	SP	5x20	2440x120x100
	BL-261-244	SP	6-20-20-20-6	2440x120x72
	BL-262-244	SP	3x20	2440x120x60
	BL-DT260-244*	HD	1x100	2440x120x100
BL-DT211-244*	BL-DT261-244*	HD	1x72	2440x120x72
	BL-DT262-244*	HD	1x60	2440x120x60

Other dimensions available on request.

## technical characteristics and certifications

- Density (Product): +/- 700 kg/m³ (SP), +/- 1050 kg/m³ (HD)
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity  
8% at 20°C and 50% rel. Air Humidity (SP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (SP),  
≥ 9.5 kg/mm² (HD) (EN 1534)
- Reaction to fire: Class D-s1-d0 (SP), Class B-s1-d0 (HD) (EN 13501-1)
- Formaldehyde emission: Class E1 (< 0.124 mg/m³) (EN 717-1)
- Modulus of Elasticity: +/- 9721 N/mm² (SP), +/- 8866 N/mm² (PP),  
+/- 12505 N/mm² (HD) (mean value - EN 408)  
Bending strength: +/- 56.7 N/mm² (SP), 50.8 N/mm² (PP), 65.4 N/mm² (HD)  
(characteristic value - EN 408)
- Use Class: Class 1 (EN 335)
- Glue: D3 water resistant
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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®)
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)



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# MOSO®

## Bamboo Panels, Veneer & Beams

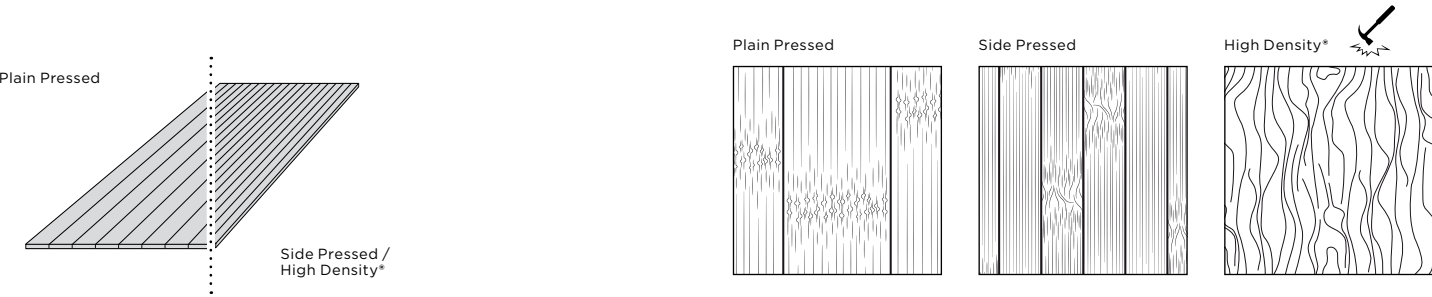
### Supra Collection

The bamboo **1-ply panels**, **veneer** and **flexible bamboo rolls** and **sheets** offer multiple solutions for decorative and sustainable bamboo wall- and ceiling coverings in various sizes, thickness, colours and textures.

**bamboo 1-ply panels**  
**bamboo veneer**  
**flexbamboo**

## MOSO® bamboo 1-ply panels

MOSO® Bamboo 1-Ply Panel is mainly used as a panel covering material, where the bamboo is pressed, double sided, on a base (for example MDF or chipboard). Most applications require pressing on both sides of the base, to prevent possible bending. The result is a “sandwich panel”.



PP: Plain Pressed, SP: Side Pressed, HD: High Density\*  
\*) Mix of natural and caramel strips

Natural	Caramel	Tiger*	Style	Thickness (mm)	Construction (mm)	Dimensions (mm)
BP-1P800	BP-1P850		PP	3	1x3	2440x1220
BP-1P802	BP-1P852		PP	5	1x5	2440x1220
BP-SP300	BP-SP350		SP	3	1x3	2440x1220
BP-SP302	BP-SP352		SP	5	1x5	2440x1220
BP-DT400	BP-DT450	BP-DT450-NP	HD	4	1x4	2440x1220

### processing instructions summary

(full version available on [www.moso.eu/1-ply-panel](http://www.moso.eu/1-ply-panel))

**When pressed under high pressure and high temperature a considerable cooling time should be allowed before stacking the cooled (max. 60°C) panels.**

- Advised room conditions: temperature approx. 21°C. Air humidity 40-65%.
- The MOSO® 1-ply panels and MOSO® solid multilayer panels are oversized in length and width and are not calibrated (fine sanded).
- The MOSO® 1-ply panels and MOSO® solid multilayer panels have an A- and B-side. The backside (B) generally contains more colour variation than the surface side (A) and can show small seams between the strips. The backside is marked with a pencil line or sticker.
- In most cases the MOSO® 1-ply panels/veneer need to be pressed on a carrier material in a “sandwich”- construction (3-ply) to maintain the balance in the total panel and avoid bending. Make sure that the type and thickness of panels on both sides of the carrier are the same.
- The surface of the 1-ply High Density\* panels may contain small seams and open pores. Depending on the finishing- and customer requirements, the surface can be closed using a (colour matching) filler.

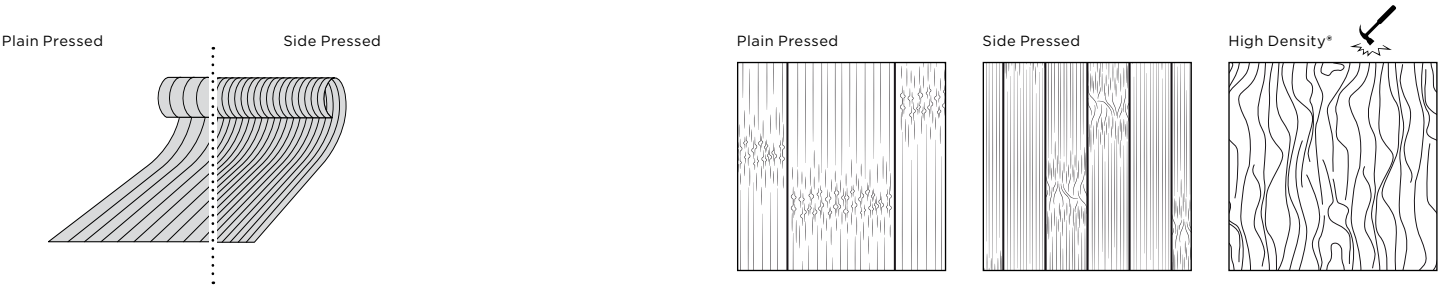
### technical characteristics and certifications

- Density (Product): +/- 700 kg/m<sup>3</sup> (SP/PP), +/- 1050 kg/m<sup>3</sup> (HD)
- Top layer thickness / Wear layer: 3-5 mm <sup>1)</sup> (SP/PP), 4 mm (HD)
- Shrink/Swell bamboo: 0.14% per 1% change in Moisture Content (SP/PP)
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity (SP/PP)
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm<sup>2</sup> (SP/PP), ≥ 9.5 kg/mm<sup>2</sup> (HD) (EN 1534)
- Formaldehyde emission: Class E1 (< 0.124 mg/m<sup>3</sup>, EN 717-1) / Class E0 (< 0.025 mg/m<sup>3</sup>) <sup>3)</sup>
- Use Class: Class 1 (EN 335)
- Glue: D3 water resistant
- CO<sub>2</sub> neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 (if requested as E0)
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)

<sup>1)</sup> Depending on thickness version.  
<sup>3)</sup> Available on request - E0 class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 class according EN 717-1.

# MOSO® bamboo veneer

MOSO® Bamboo Veneer is a high quality veneer, which is created by slicing sheets from laminated blocks made from bamboo strips. To avoid cracks during handling, MOSO® Veneer is backed with a thin, but strong cellulose fleece. This facilitates easy pressing of the veneer sheets on a panel, which enables the use in multiple applications in the building and interior design industries. MOSO® Bamboo Veneer is available in various sizes, colours and styles and can be supplied with formaldehyde free adhesive (EO norm) and FSC®-certification. MOSO® Veneer is mainly offered in A-selection (regular in colour) and can be processed with a minimum of cutting and selection waste.



PP: Plain Pressed, SP: Side Pressed, HD: High Density\*  
\*) High Density\* veneer contains finger joints

Natural	Caramel	Style	Thickness (mm)	Dimensions (mm)
BV-PPN100	BV-PPC150	PP	0.6	2500x430
BV-PPN104	BV-PPC154	PP	0.6	2500x1250
BV-PPN138	BV-PPC188	PP	0.6	2710x430
BV-SPN100	BV-SPC150	SP	0.6	2500x430
BV-SPN104	BV-SPC154	SP	0.6	2500x1250
BV-SPN138	BV-SPC188	SP	0.6	2710x430
BV-SPN145	BV-SPC195	SP	0.6	3100x430
BV-SPN146	BV-SPC196	SP	0.6	3100x1250
	BV-DT154*	HD	0.5	2500x1250

## application

(full version available on [www.moso.eu/veneer](http://www.moso.eu/veneer))

MOSO® veneer is normally pressed, double sided, on panels (like chipboard, multiplex or MDF). The backing is a cellulose fleece which is bonded with D3 water-resistant PVAC glue. The cellulose backing can endure short periods of temperatures above 220 degrees Celsius, for example when splicing the sheets. When pressed under high pressure and high temperature a considerable cooling time should be allowed before stacking the cooled (max. 60°C) panels. To press the backed bamboo veneer MOSO® advises to carry out a glue test first, to determine the exact pressing time, temperature and pressure. The standard thickness of the veneer is 0.6 mm: 0.5 mm bamboo and 0.1 mm backing material. In case the veneer gets sanded, the end-thickness should be minimum 0.2 mm.

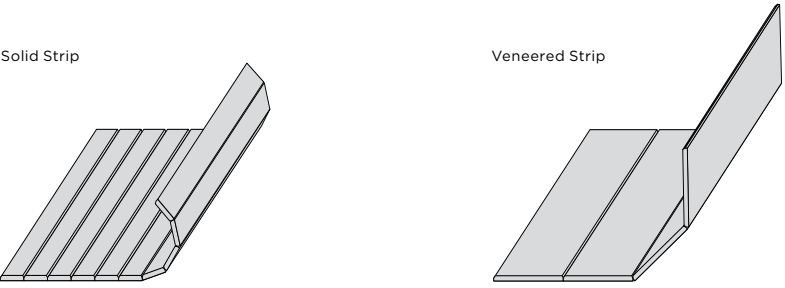
## technical characteristics and certifications

- Density (Product): +/- 700 kg/m<sup>3</sup>
- Top layer thickness / Wear layer: 0.6 mm
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity
- 8% at 20°C and 50% rel. Air Humidity
- Resistance to Indentation - Brinell Hardness: depending on used substrate (EN 1534)
- Formaldehyde emission: Class E1 (< 0.124 mg/m<sup>3</sup>, EN 717-1) / Class E0 (< 0,025 mg/m<sup>3</sup>) <sup>3)</sup>
- Class E1 (< 0.100 ppm) / Class E0 (< 0.020 ppm) <sup>3)</sup> (ASTM E 1333-96)
- Use Class: Class 1 (EN 335)
- Glue: D3 water resistant
- Backing: Non woven cellulose fleece
- CO<sub>2</sub> neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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 (if requested as E0)
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®)

<sup>3)</sup> Available on request – E0 class is an unofficial formaldehyde emission class, but it is commonly used to indicate that the product is produced with No Added Formaldehyde (NAF) glues. E0 products automatically qualify for the official E1 class according EN 717-1.

# MOSO® flexbamboo (rolls and sheets with fabric backing)

MOSO® Flexbamboo is a flexible bamboo product often placed on a carrier (e.g. MDF) and mostly used as an aesthetical covering material on walls, ceilings, cabinets or furniture. Flexbamboo thus combines the virtues of bamboo (aesthetical, sustainable) with flexibility and ease of installation. The product is available unfinished or finished with a high quality LED-dried oil in various trendy colours. Flexbamboo is available in two different styles: solid strip and veneered strip.



O=Oiled, SO=Stained-oiled.  
\*\*) The last 2 positions of the product code represent the colour of the oil finish: 21=unfinished, 91=transparent, 92=Misty-White, 94=Walnut, 95=Silver-Grey, 96=Ebony, 98=Ivory (Ivory not available as veneered strip).

Natural	Caramel	Type	Strip Size (mm)	Finish	Backing	Roll Dimensions (m)	Sheet Dimensions (m)
MPNF7-204-**)	MPCF7-204-**)	Solid strip	2x7	- / O / SO	Fabric	2.04x45	
MPNF7-244-**)	MPCF7-244-**)	Solid strip	2x7	- / O / SO	Fabric	2.44x30	
MPNF15-204-**)	MPCF15-204-**)	Solid strip	2x15	- / O / SO	Fabric	2.04x45	
MPNF15-244-**)	MPCF15-244-**)	Solid strip	2x15	- / O / SO	Fabric	2.44x30	
	MZCF50-204-**)HF	Veneered strip	4x50	- / O / SO	Fabric	2.04x15	
	MZCF50-244-21HF	Veneered strip	4x50	- / O / SO	Fabric	2.44x15	
	MPCF7-244-125	Solid strip	2x7	- / O / SO	Fabric		2.44x1.25
	MPCF15-244-125	Solid strip	2x15	- / O / SO	Fabric		2.44x1.25
	MPCF7-200-300	Solid strip	2x7	- / O / SO	Fabric		3.00x2.00
	MPCF15-200-300	Solid strip	2x15	- / O / SO	Fabric		3.00x2.00

## application

- Common carrier panels: MDF, chipboard, multiplex.
- Pressing: use a suitable glue (PVAC, cold pressed). Use a suitable material (for example veneer) to cover the other side of the panel, to prevent bending of the panel.

## technical characteristics and certifications

- Density (Product): +/- 700 kg/m<sup>3</sup>
- Top layer thickness / Wear layer: 2 mm
- Equilibrium MC: 10% at 20°C and 65% rel. Air Humidity
- 8% at 20°C and 50% rel. Air Humidity
- Resistance to Indentation - Brinell Hardness: ≥ 3 kg/mm<sup>2</sup> (EN 1534)
- Formaldehyde emission: Class E1 (< 0.124 mg/m<sup>3</sup>) (EN 717-1)
- Use Class: Class 1 (EN 335)
- Glue: D3 water resistant
- Backing: Fabric
- Contribution LEED BD+C - v4: EQ2
- v2009: MR 6
- Contribution BREEAM: HEA 2



# MOSO®

## Bamboo Outdoor

### X-treme® Collection

With Bamboo X-treme®, MOSO® has developed a truly **ecological** and **durable** alternative for increasingly scarce tropical hardwood.

MOSO® uses a unique patented process to enhance the **hardness**, **dimensional stability**, **fire safety** and **durability** to a level **superior** to the best tropical hardwood species. MOSO® Bamboo X-treme® can be used for **decking**, **cladding**, **fencing** and **outdoor furniture**.

**bamboo x-treme® decking**

**bamboo x-treme® cladding**

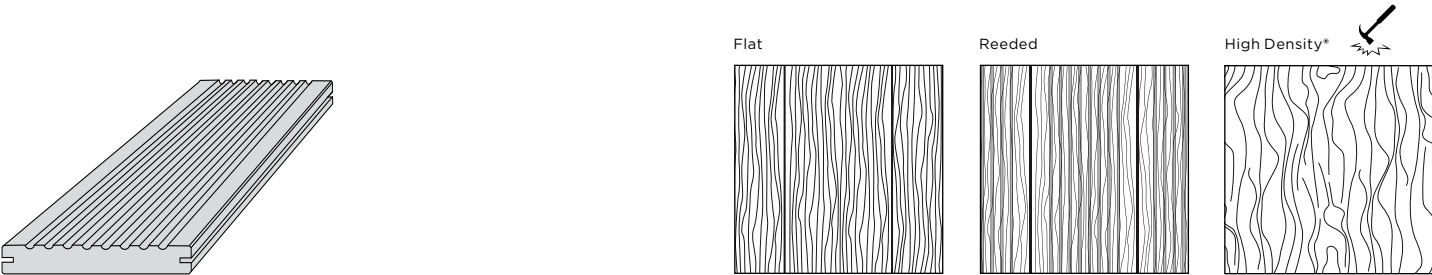
bamboo x-treme® accessories

**bamboo x-treme® fencing**

**bamboo x-treme® beams**

## MOSO® bamboo x-treme® outdoor decking

MOSO® Bamboo X-treme® is a solid, Thermo-Density® decking board, made from compressed bamboo strips. A special, patented heat-treatment process at 200°C provides MOSO® Bamboo X-treme® the highest durability class possible in the appropriate EU norms (see technical characteristics below) and increases the hardness and stability. A unique feature of MOSO® Bamboo X-treme® is the end-match system: this can only be done with very stable materials and enables connection of an unlimited number of boards in the length. The special symmetrical shape of the sides offers the possibility to choose between either the reeded or the flat surface, and allows for quick installation with MOSO® fasteners. Like any untreated tropical hardwood species, when exposed to outdoor conditions, MOSO® Bamboo X-treme® will turn grey over time creating a very natural look.



O: Oil Woca, B: Bevel (also on ends), R: Reeded, F: Flat  
\*) The end of the boards are protected with wax, \*\*) Check availability.

Product Code	Grooved	Finish	Edges	Surface	End-match system	Dimensions (mm)
BO-DTHT170G	Yes	-	B	R/F	Yes	1850x137x20
BO-DTHT171G	Yes	O	B	R/F	Yes*	1850x137x20
BO-DTHT181G	Yes	O	B	R/F	Yes*	1850x137x18
BO-DTHT190G**	Yes	-	B	R/F	Yes	1850x155x20
BO-DTHT191G	Yes	O	B	R/F	Yes*	1850x155x20
BO-DTHT210G**	Yes	-	B	R/F	Yes	1850x178x20
BO-DTHT211G	Yes	O	B	R/F	Yes*	1850x178x20

### installation summary

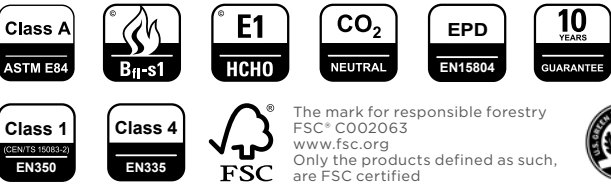
(full version available on [www.moso.eu/x-treme](http://www.moso.eu/x-treme))

- Install a suitable, fixed, stable and durable sub frame.
- Determine which side of the board will be used: the reeded or flat side.
- Fix the boards on the sub frame using fasteners (to be inserted in the grooves of the board) or alternatively with screws (through the surface).
- Use a 1-2% slope and ensure good ventilation is available.
- After installation: make sure proper cleaning and maintenance is done, according to the chosen finish.
- When not applying outdoor oil regularly, the deck will acquire a grey colour tone and the typical bamboo wood grain structure will become less visible.
- Bamboo X-treme® is available pre-oiled or unfinished. In order to maintain the rich brown colour an exterior penetrating oil for hardwoods is recommended to be applied 3 to 4 months after installation. We advise to apply the initial coat 3-4 months after installation.
- For further info: please see the installation/maintenance instructions.

### technical characteristics and certifications

- Density: +/- 1150 kg/m³
- Dimensional stability: length: + 0.1 %; width + 0.9% (24 hours in water 20°C)
- Resistance to Indentation - Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire: Class Bfl-s1 (EN 13501-1)
- Flame spread index: Class A (ASTM E84)
- Slip resistance: USRV 37 (Dry), USRV 29 (Wet) (CEN/TS 15676) / R 10 (CEN/TS 16165 Annex B - DIN 51130)
- Thermal emittance: 0.81 (ASTM C1371)\*
- Solar Reflectance (SR): 32 (ASTM C1549)\*
- Solar Reflectance Index (SRI): Low 27, Medium 30, High 33 (ASTM E1980)\*
- Modulus of Elasticity: 13565 N/mm² (mean value - EN 408)
- Breaking strength: 54.4 N/mm² (characteristic value - EN 408)
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against Blue Stain: Class 0 (EN 152)
- Use Class: Class 4 (EN 335)
- CO2 neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://www.moso.eu/epd))
- FSC®: Products available with FSC® certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®), EQ 2 v2009: MR 6, MR 7 (FSC®), IEQ 4.3, IEQ 4.4
- Contribution BREEAM: MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 10 years

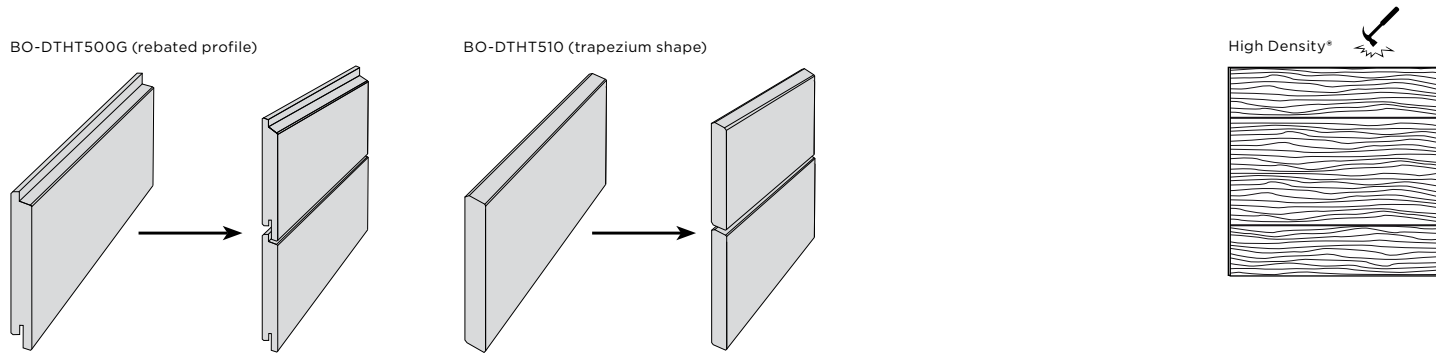
\*) Tested on 3 years weathered MOSO® Bamboo X-treme®



breeam

# MOSO® bamboo x-treme® outdoor cladding

MOSO® Bamboo X-treme® cladding is a solid, Thermo-Density® exterior board, made from compressed bamboo strips. A special, patented heat-treatment process at 200°C provides MOSO® Bamboo X-treme® the highest durability class possible in the appropriate EU norms, increases the stability and density, and consequently the hardness (see below). Furthermore, contrary to other wood products, this product achieves fire resistance Class B-s1-d0 (EN 13501-1) without impregnation with expensive and eco-damaging fire retardants. MOSO® Bamboo X-treme® cladding is available in 2 shapes: a rebated profile and a trapezium shape. The former is installed with fasteners (18 mm) and screws and the latter with screws. Like any untreated tropical hardwood species, when exposed to outdoor conditions, MOSO® Bamboo X-treme® will turn grey over time creating a very natural look.



B: Bevel (also on ends), F: Flat

Product Code	Grooved	Finish	Edges	Surface	End-match system	Effective width (mm)	Dimensions (mm)
BO-DTHT500G	Yes	-	B	F	Yes	128	1850x137x18
BO-DTHT510	No	-	B	F	Yes	132	1850x137x18

## installation summary

(full version available on [www.moso.eu/x-treme](http://www.moso.eu/x-treme))

- Apply a waterproof membrane against the wall and screw vertical battens onto that.
- Each board should be fixed on at least 3 battens: so the maximum centre-to-centre distance between the battens is 616.7 mm (1850 mm/3).
- Install the first, bottom, row of fasteners on the battens and place the first row of boards onto them.
- Place the second row of fasteners / boards and continue like this with the whole surface.
- For further info: please see the installation / maintenance instructions.

## technical characteristics and certifications

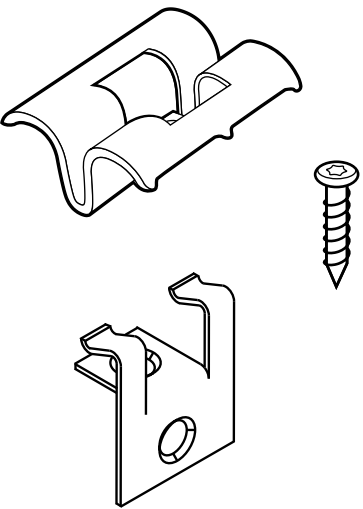
- Density: +/- 1150 kg/m³
- Dimensional stability: length: + 0.1 %; width: + 0.9% (24 hours in water 20°C)
- Resistance to Indentation - Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire: Class B-s1-d0 (EN 13501-1)
- Flame spread index: Class A (ASTM E84)
- Thermal emittance: 0.81 (ASTM C1371)\*
- Solar Reflectance (SR): 32 (ASTM C1549)\*
- Solar Reflectance Index (SRI): Low 27, Medium 30, High 33 (ASTM E1980)\*
- Modulus of Elasticity: 13565 N/mm² (mean value - EN 408)
- Breaking strength: 54.4 N/mm² (characteristic value - EN 408)
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against Blue Stain: Class 0 (EN 152)
- Use Class: Class 4 (EN 335)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://www.moso.eu/epd))
- FSC®: Products available with FSC® certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®) v2009: MR 6, MR 7 (FSC®)
- Contribution BREEAM: MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 10 years

\*) Tested on 3 years weathered MOSO® Bamboo X-treme®



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# MOSO® bamboo x-treme® accessories



## MOSO® fasteners and screws

With these fasteners MOSO® Bamboo X-treme® decking and cladding can be easily installed. When installed correctly there will be 5-6 mm gaps between the boards. The fasteners are supplied with matching stainless steel screws (square bit). For installation on aluminium sub frame joist (not provided by MOSO®), special screws are available.

Product Code	Item	Material	Colour	Dimensions (mm)
CLIP-SCREW-BX031	Fastener (20 mm)	Stainless steel A2 (AISI304)	Brown	27x22.5x10.8
	Screw	Stainless steel A2 (AISI304)	Brown	4.5x30
CLIP-SCREW-BX301	Fastener starter/end (20 mm)	Stainless steel A2 (AISI304)	Brown	27x17x31
	Screw	Stainless steel A2 (AISI304)	Brown	4.5x30
SCREW-03-01	Screw for aluminum sub frame joist	Stainless steel (AISI410)	Brown	4.2x16

Product Code	Item	Material	Colour	Dimensions (mm)
CLIP-SCREW-BX031	Fastener (20 mm)	Stainless steel A2 (AISI304)	Brown	27x22.5x9.8
	Screw	Stainless steel A2 (AISI304)	Brown	4.5x30
CLIP-SCREW-BX301	Fastener starter/end (20 mm)	Stainless steel A2 (AISI304)	Brown	27x17x31
	Screw	Stainless steel A2 (AISI304)	Brown	4.5x30
SCREW-03-01	Screw for aluminum sub frame joist	Stainless steel (AISI410)	Brown	4.2x16

## sub frame joists

The MOSO® Bamboo X-treme® sub frame joists are made of the same material as the decking boards: Thermo-Density® heat-treated bamboo.

Product Code	Material	Finish	Dimensions (mm)
BO-SB150	Thermo-Density® bamboo	Unfinished	2440x70x40
BO-SB155	Thermo-Density® bamboo	Unfinished	2440x60x40

## endprofile

The BO-DTHT162 is an endprofile for an elegant finish of the sides of the decking. It is placed vertically against the sides of the terrace to cover the sub frame.

Product Code	Material	Finish	Dimensions (mm)
BO-DTHT162	Thermo-Density® bamboo	Unfinished	1850x137x20

## maintenance & cleaning

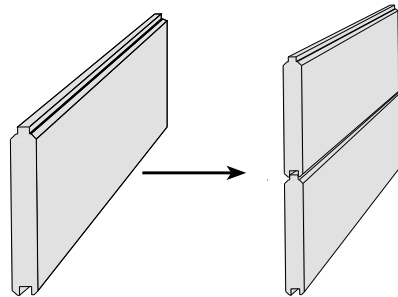
Under the influence of wind, rain, sun and snow the decking will weather. MOSO® recommends to impregnate and maintain the pre-oiled decking with Woca Maintenance materials. Unfinished decking must be treated with Sikken's Saturator or Woca oil right after installation. The silicium carbid broom and machine disk are perfectly suited to clean and smooth the decking surface of Bamboo X-treme® and to remove splinters due to the capability to sand the surface in addition to cleaning it.

Product Code	Material
Wax-bx-01	Wax for board ends X-treme
Oil-Woca-003	WOCA Maintenance Oil Natural
Oil-Woca-011	WOCA Exterior Oil Exclusive Teak
Cleaner-Woca-01	WOCA Exterior Cleaner
SATURATOR-SIK01	SIKKENS Saturator Ipe
SATURATOR-SIK11	SIKKENS Saturator Transparent
Broom-01	Silicium carbid broom
Disk-01	16" Silicium carbid disk

## MOSO® bamboo x-treme® fencing

MOSO® Bamboo X-treme® fence boards are solid, Thermo-Density® exterior boards, made from compressed bamboo strips. A special, patented heat-treatment process at 200°C provides MOSO® Bamboo X-treme® the highest durability class possible in the appropriate EU norms and increases the stability and density. The fence boards, with end-match system, are mounted between posts with U-profiles (not provided by MOSO®). Like any untreated tropical hardwood species, when exposed to outdoor conditions, MOSO® Bamboo X-treme® will turn grey over time creating a very natural look.

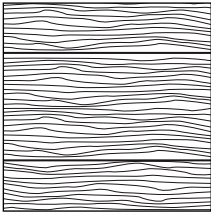
BO-DTHT301TG (fencing board shape)



O: Oil Woca, B: Bevel (also on ends), F: Flat

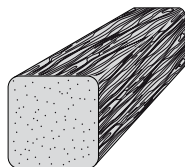
Product Code	Grooved	Finish	Edges	Surface	End-match system	Effective width (mm)	Dimensions (mm)
BO-DTHT301TG	Board ends	O	B	F	No	131	1800x137x20

High Density\*



## MOSO® bamboo x-treme® outdoor beams

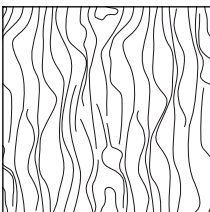
A special patented heat-treatment process at 200°C and increased density (by compressing the bamboo strips) make the MOSO® Bamboo X-treme® material extremely durable and stable. This durability and stability, and the pre-profiled rounded edges, make MOSO® Bamboo X-treme® beams ideal for use in outdoor furniture products. The elaborate manufacturing process provides MOSO® Bamboo X-treme® outdoor beams the highest durability class possible in the applicable EU norms. As with tropical hardwoods, the colour of the material changes under the influence of wind, rain, frost and sunshine (UV-light). This results in a typical weathered natural grey-tone. Regular cleaning and maintenance with a Lasur/oil protects the material against this weather related discolouration.



LR: Lasur Sikkens

Product Code	Finish	Bevel	Dimensions (mm)
BO-DTHT2170-01	LR	R=6mm	2000x115x40
BO-DTHT2171-01	LR	R=6mm	2000x80x40
BO-DTHT2172-01	LR	R=6mm	2000x60x40
BO-DTHT2173-01	LR	R=6mm	2000x40x40
BO-DTHT2174-01	LR	R=6mm	2000x55x40
BO-DTHT2175-01	LR	R=6mm	2000x90x40

High Density\*



### technical characteristics and certifications

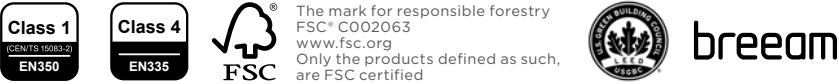
- Density: +/- 1150 kg/m³
- Dimensional stability: length: + 0,1 %; width + 0,9% (24 hours in water 20°C)
- Resistance to Indentation - Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire: Class B-s1-d0 (EN 13501-1)
- Flame spread index: Class A (ASTM E84)
- Thermal emittance: 0.81 (ASTM C1371)\*
- Solar Reflectance (SR): 32 (ASTM C1549)\*
- Solar Reflectance Index (SRI): Low 27, Medium 30, High 33 (ASTM E1980)\*
- Modulus of Elasticity: 13565 N/mm² (mean value - EN 408)
- Breaking strength: 54.4 N/mm² (characteristic value - EN 408)
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against Blue Stain: Class 0 (EN 152)
- Use Class: Class 4 (EN 335)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://www.moso.eu/epd))
- FSC®: Products available with FSC® certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®) v2009: MR 6, MR 7 (FSC®)
- Contribution BREEAM: MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 10 years

\*) Tested on 3 years weathered MOSO® Bamboo X-treme®

### technical characteristics and certifications

- Density: +/- 1150 kg/m³
- Dimensional stability: length: + 0,1 %; width + 0,9% (24 hours in water 20°C)
- Resistance to Indentation - Brinell Hardness: ≥ 9.5 kg/mm² (EN 1534)
- Reaction to fire: Class B-s1-d0 (EN 13501-1)
- Flame spread index: Class A (ASTM E84)
- Thermal emittance: 0.81 (ASTM C1371)\*
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- Modulus of Elasticity: 13565 N/mm² (mean value - EN 408)
- Breaking strength: 54.4 N/mm² (characteristic value - EN 408)
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against Blue Stain: Class 0 (EN 152)
- Use Class: Class 4 (EN 335)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://www.moso.eu/epd))
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- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®) v2009: MR 6, MR 7 (FSC®)
- Contribution BREEAM: MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 10 years

\*) Tested on 3 years weathered MOSO® Bamboo X-treme®





# MOSO®

## Bamboo Outdoor

### N-finity Collection

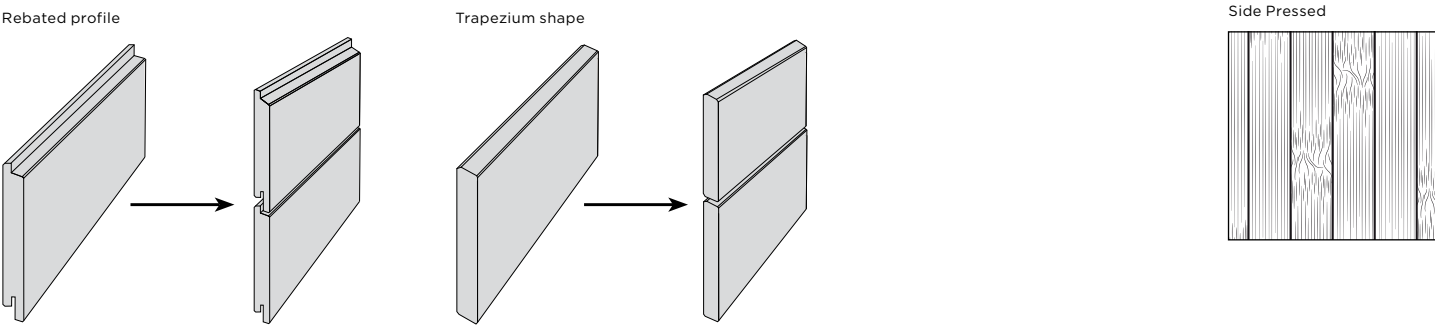
With the N-finity Collection, MOSO® has developed a truly **ecological** and **durable** alternative to increasingly scarce tropical hardwood. By using a **special impregnation** process, the material is made suitable for many exterior applications, such as **cladding**, **shutters**, **furniture** and **structural beams**.

**bamboo n-finity cladding**

**bamboo n-finity beams**

## MOSO® bamboo n-finity outdoor cladding

MOSO® Bamboo N-finity cladding is a solid, laminated bamboo board that is impregnated for outdoor use. The special impregnation process provides the product the highest durability class possible following EU norm EN 350 (see technical characteristics below). MOSO® Bamboo N-finity cladding is available in two standard lengths, and on request even in lengths up to 5800 mm. The extraordinary length is achieved by connecting the strips with a special patented hook connection. MOSO® Bamboo N-finity cladding is available in 2 shapes: a rebated profile and a trapezium shape. The former is installed with fasteners and screws and the latter with screws. Like any untreated tropical hardwood species, when exposed to outdoor conditions, MOSO® Bamboo N-finity will turn grey over time creating a very natural look.



B: Bevel, F: Flat, T/G: Tongue/Groove

Product Code	Type	Grooved	Finish	Edges	Surface	Head-side T/G	Effective width (mm)	Dimensions (mm)
BO-IL500G-540	Rebated	Yes	Unfinished	B	F	No	128	5400x140x18
BO-IL500G-240	Rebated	Yes	Unfinished	B	F	No	128	2400x140x18
BO-IL510-540	Trapezium	No	Unfinished	B	F	No	131	5400x140x18
BO-IL510-240	Trapezium	No	Unfinished	B	F	No	131	2400x140x18

Other dimensions can be produced custom made.

### Installation summary

(full version available on [www.moso.eu/n-finity](http://www.moso.eu/n-finity))

- Apply a waterproof membrane against the wall and screw vertical battens (at least 20 mm thick, 60 mm wide) onto that, creating a rigid/flat surface onto which the boards can be fixed.
- Fix the cladding boards, starting with the lowest row of boards.
- **Trapezium version:** Use a countersink drill to predrill the screw holes; always use 2 screws on each batten. Install the board and make sure it is placed fully level. Make sure the screws used are suitable for the material used as battens. Install the second row of boards, using a minimum 6 mm spacing. Continue with the rest of the rows.
- **Rebated version:** Use the MOSO® Fastener (CLIPSCREW-BX04) to fix the boards onto the battens; always use 2 fasteners on each batten. The boards must be placed fully level. Make sure the screws used are suitable for the material used as battens. Continue with the rest of the rows.
- Cutting, planing and sanding should be avoided as it removes the anti-fungal protection.
- Bamboo N-finity does not require a finish, unless you want to slow down its natural weathering behavior. The material will turn light grey if you do not apply any finish.
- To finish the material we advise the use of Sikken Cetol Savannah, which is a Saturator.

### Technical characteristics and certifications

- Density: +/- 700 kg/m³
- Shrink/Swell: 0.14% per 1% change in Moisture Content
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (EN 1534)
- Reaction to fire: Class D-s2-d0 (EN 13501-1)
- Impregnation preservatives: comply with European biocide product regulation (BPR) and are not listed on the restrictions list of REACH Annex XVII/candidate list
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against surface fungi: Class 0, Strong fungi static (EN ISO 846), impregnation only superficial (2-3 mm)
- Use Class: Class 3 (EN 335)
- FSC®: Products available with FSC® certification on request
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®)
- v2009: MR 6, MR 7 (FSC®)
- Contribution BREEAM: MAT 1, MAT 3 (FSC®)



The mark for responsible forestry  
FSC® C002063  
[www.fsc.org](http://www.fsc.org)  
Only the products defined as such,  
are FSC certified



breeam

# MOSO® bamboo n-finity outdoor beams

MOSO® Bamboo N-finity beams are solid, laminated bamboo beams that are impregnated for outdoor use. A special impregnation process provides the product the highest durability class possible following EU norm EN 350 (see technical characteristics below).

The bamboo strips are connected with a special patented hook connection. The standard product is supplied with pre-profiled rounded edges, available in 5 dimensions with a length of 2 metres, and is ideal for furniture applications, cladding or sunblinds. MOSO® Bamboo N-finity beams can be produced, on request, with various dimensions up to a maximum length of 5800 mm. MOSO® Bamboo N-finity outdoor laminated bamboo has been tested for mechanical properties (bending, tension, compression, shear) and can also be applied as structural beams.



Product Code	Construction	Finish	Bevel	Dimensions (mm)
BO-IL2173-200	2x18mm	Unfinished	R=3mm	2000x40x36
BO-IL2172-200	2x18mm	Unfinished	R=3mm	2000x60x36
BO-IL2171-200	2x18mm	Unfinished	R=3mm	2000x80x36
BO-IL2176-200	2x18mm	Unfinished	R=3mm	2000x100x36
BO-IL2177-200	2x18mm	Unfinished	R=3mm	2000x120x36

Other dimensions can be produced custom made: maximum beam size 5800 x 200 x 120 mm or 5800 x 120 x 200 mm.

### please note before installation

- Cutting, planing and sanding should be avoided as it removes the anti-fungal protection.
- Bamboo N-finity does not require a finish, unless you want to slow down its natural weathering behavior. The material will turn light grey if you do not apply any finish.
- To finish the material we advise the use of Sikken Cetol Savannah, which is a Saturator.

### technical characteristics and certifications

- Density: +/- 700 kg/m³
- Shrink/Swell: 0.14% per 1% change in Moisture Content
- Resistance to Indentation - Brinell Hardness: ≥ 4 kg/mm² (EN 1534)
- Reaction to fire: Class D-s2-d0 (EN 13501-1)
- Modulus of Elasticity: 9721 N/mm² (SP), 8866 N/mm² (PP) (EN 408)
- Bending strength: 56.7 N/mm² (SP), 50.8 N/mm² (PP) (EN 408)
- Impregnation preservatives: comply with European biocide product regulation (BPR) and are not listed on the restrictions list of REACH Annex XVII/candidate list
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against surface fungi: Class 0, Strong fungi static (EN ISO 846), Impregnation only superficial (2-3 mm)
- Use Class: Class 3 (EN 335)
- FSC®: Products available with FSC® certification on request
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®)
- v2009: MR 6, MR 7 (FSC®)
- Contribution BREEAM: MAT 1, MAT 3 (FSC®)

# MOSO®

# Bamboo Unlimited

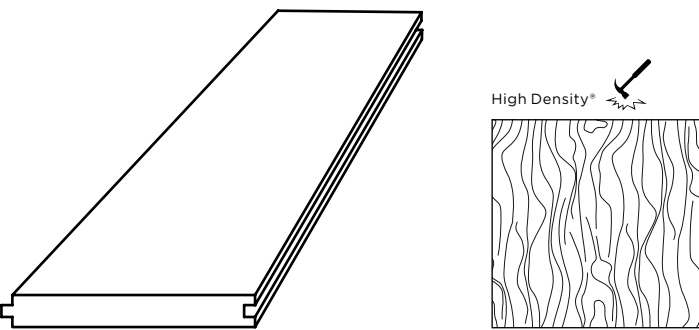
Besides the broad assortment of flooring, panels & veneer and outdoor products, MOSO® is able to develop **unique bamboo solutions** that meet **exceptionally high demands**. Solutions like **Bamboo Ultradensity® heavy duty flooring** and **stair panels**. Bamboo ceilings, computer flooring and stable planks ask for a special treatment of materials, for which MOSO® created **customised solutions** (see page 47).

**bamboo ultradensity® flooring**  
**bamboo ultradensity® stair panels**

## 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.



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 U<sub>4</sub>P<sub>4</sub>E<sub>2</sub>C<sub>2</sub> within the loading limits corresponding to this classification\*. This Technical field has been registered at CSTB under the number ATE<sub>x</sub> 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).

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

approved by ATE<sub>x</sub> n° 2385  
on the 19th of December 2016

Class U<sub>4</sub>P<sub>4</sub>E<sub>2</sub>C<sub>2</sub>

### installation summary (full version available on [www.moso.eu/ultradensity](http://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/m<sup>3</sup>
- 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/mm<sup>2</sup> (EN 1534)
- Reaction to fire<sup>1)</sup>: Class Bfl-s1 (EN 13501-1)
- Slip resistance<sup>1)</sup>: 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/mm<sup>2</sup> (EN 408)
- Breaking strength: 95.5 N/mm<sup>2</sup> (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 U<sub>4</sub>P<sub>4</sub>E<sub>2</sub>C<sub>2</sub><sup>1)</sup>
- CO<sub>2</sub> neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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

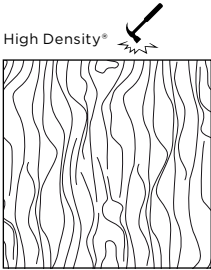
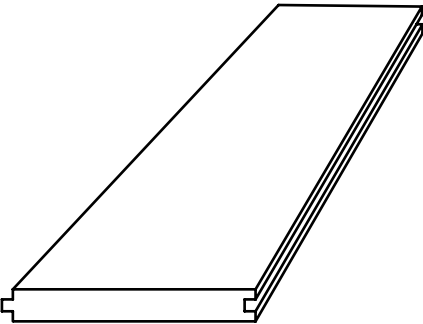
<sup>1)</sup> only when finished with Woca N°1 oil.



# 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.



HD: High Density\*, MB: Micro bevel

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

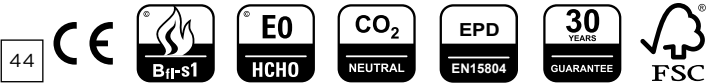
## installation summary (full version available on [www.moso.eu/ultradensity](http://www.moso.eu/ultradensity))

- 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 y >=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: ≥ 9.5 kg/mm² (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](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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

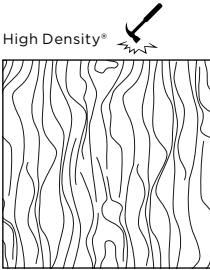
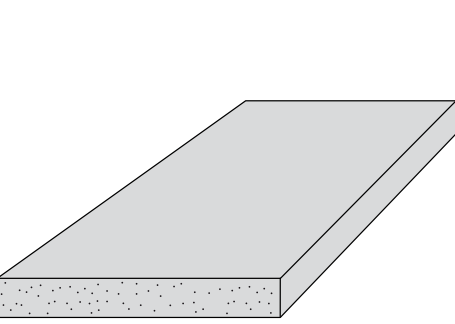


The mark for responsible forestry FSC® C002063 [www.fsc.org](http://www.fsc.org) Only the products defined as such, are FSC certified



# MOSO® bamboo ultradensity® stair panels

The MOSO® Bamboo ultradensity® Stair Panel is a solid bamboo board, made from compressed bamboo strips. The compression process makes the panels very dense, hard and stable. The product has been certified and the mechanical properties allow for structural applications such as stairs. Bamboo UltraDensity® Stair Panel is suitable for semi-outdoor covered areas and indoor applications (Use Class 3 / EN 335).



HD: High Density\*, SE: Sharp Edge

Caramel	Style	Finish	Edge	Thickness (mm)	Dimensions (mm)
BP-DS1080	HD	-	SE	38	2440x320

- The look may be different compared to High Density\* flooring, please check before ordering if the products can be combined.
- Because of the High Density\* of the UltraDensity\* products the surface is very closed.

## technical characteristics and certifications

- Density: +/- 1150 kg/m³
- 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: Class Bfl-s1 (EN 13501-1)
- Formaldehyde emission: < 0.124 mg/m³, EN 717-1)
- VOC emission: 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)
- CO₂ neutral: LCA report TU Delft (ISO 14040/44) ([www.moso.eu/lca](http://www.moso.eu/lca))
- Environmental Product Declaration - EPD (EN 15804) ([www.moso.eu/epd](http://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



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about MOSO®

MOSO® International was founded in 1997 and, since then, has evolved to become the unchallenged European market leader in the development of innovative and sustainable bamboo products for interior and exterior applications. The range of products is divided in four product groups:



- **MOSO® Bamboo Flooring**  
Complete range of flooring types with multiple variations in size, colour and style, thus providing dozens of different bamboo flooring possibilities for each market (ranging from domestic to professional).
- **MOSO® Bamboo Panels, Veneer & Beams**  
Very broad assortment in various sizes, colours and styles, offering solutions for indoor decoration (walls, ceilings, furniture, doors, etc) and (semi-)structural applications (window frames, curtain walls, etc).
- **MOSO® Bamboo Outdoor**  
By using either heat treatment (Bamboo X-treme®) or impregnation (Bamboo N-finity) the material is made suitable for many exterior applications, such as decking, cladding, fencing, and (furniture-) beams.
- **MOSO® Bamboo Unlimited**  
Unique solutions that can meet exceptionally high requirements from project partners, like the heavy duty flooring Bamboo UltraDensity®, and customised solutions for industrial clients like BMW and Dell.



**MOSO®: World Leading in Bamboo**  
There is no other company worldwide with an equal – and still expanding - broad assortment in high quality bamboo products, permanently available from stock either in Barcelona (office MOSO Europe), Milan (office MOSO Italy), Cape Town / Johannesburg (office MOSO Africa), Pennsauken (office MOSO USA), Dubai (office MOSO Middle East), Hangzhou (office MOSO China) or at the main office near Amsterdam (MOSO International). Furthermore, MOSO® works with several partner companies and leading distributors worldwide to guarantee the availability of MOSO® products in each region.

Furthermore, because of its expertise, MOSO® is able to develop unique, customized bamboo solutions for industrial clients meeting exceptionally stringent requirements. Through its experience, innovative attitude and world-wide network, MOSO® is recognised as the global A-brand in bamboo products. The proof is the impressive list of references and clients such as Madrid Airport, BMW, AkzoNobel, Texaco, Guggenheim Museum, Rabobank, United Nations (FAO), Iberostar and CitizenM Hotels. For an overview of our references and clients please refer to our website: [www.moso.eu/references](http://www.moso.eu/references).

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# MOSO® customised solutions

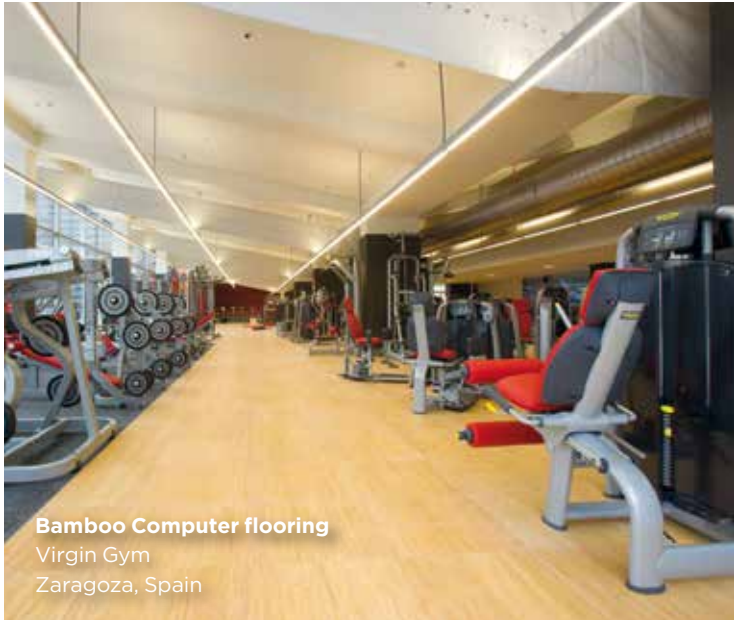
MOSO® develops and offers a wide range of customised specialties, such as:

- ceiling board
- computer flooring
- stable planks

For more information please contact us: [info@moso.eu](mailto:info@moso.eu)

► [www.moso.eu/unlimited-solutions](http://www.moso.eu/unlimited-solutions)

Bamboo Ceiling board  
International Airport  
Madrid, Spain



Bamboo Computer flooring  
Virgin Gym  
Zaragoza, Spain



Bamboo E-quine stable planks  
Stable in Alsace  
Corrèze, France





Paper from responsible sources  
FSC® C002063

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