

**MOSO<sup>®</sup>**

**Bamboo X-treme<sup>®</sup>**

*Stable, sustainable and  
certified bamboo decking*



Bamboo: the fastest  
growing plant  
in the world

# MOSO® Bamboo X-treme®

With MOSO® Bamboo X-treme® you can create a **beautiful deck** made of natural-grown bamboo, for your **terrace, balcony, swimming pool area** or other **outdoor spaces**. The truly **ecological** and **durable** alternative for increasingly scarce tropical hardwood offers you the touch, feel and look of a natural material. **Bamboo X-treme®** is available in a wide range of products including **decking, cladding, fencing, and beams**.

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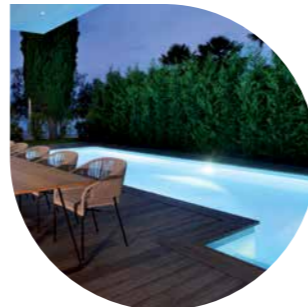
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# X-tremely beautiful

Enrich your garden, balcony or roof area with MOSO® Bamboo X-treme®, the natural, fast growing alternative to hardwood. Similar to hardwood, you can determine the look depending on the finish you choose.



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For more information about these references please go to page 28.

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Dror Golan  
Lior Teitler

MOSO®

moso



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Fraser Decks & Patio Covers  
Reily Imagery

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For more information  
about these references  
please go to page 28.



Haladesign Landschaftsplanung  
Qin (Andy Andresen)

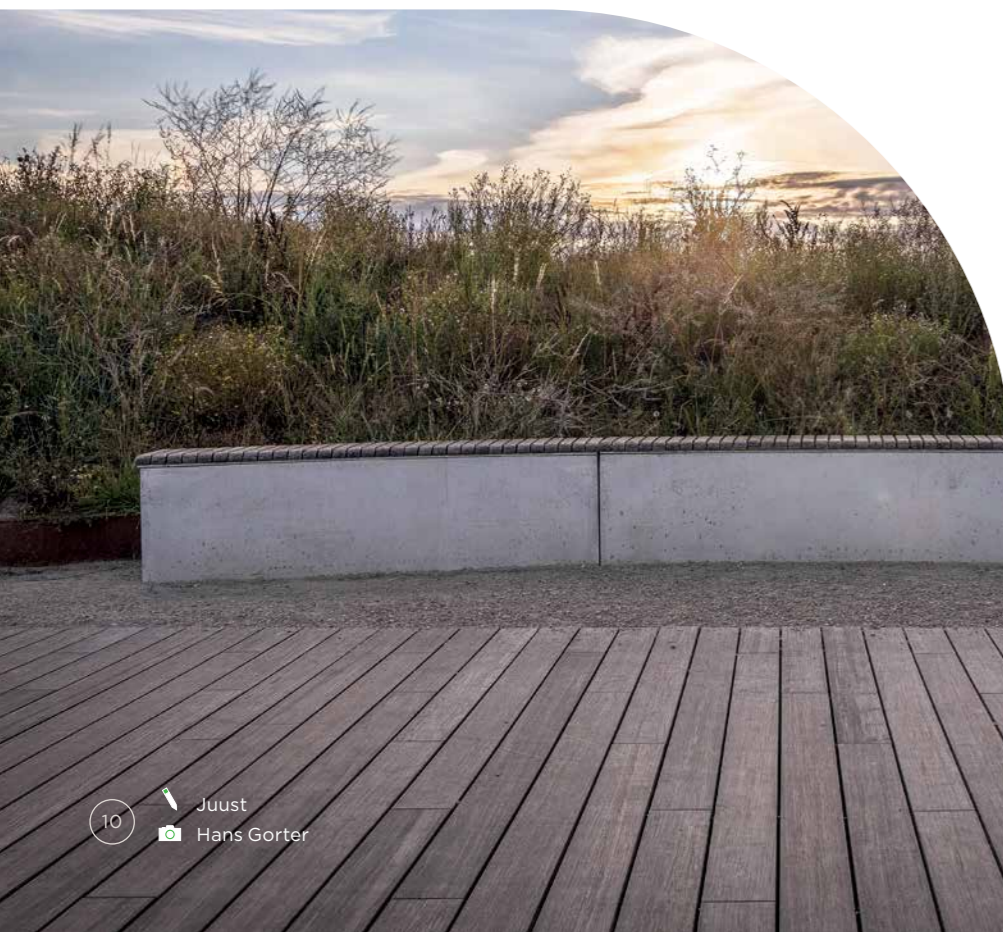


# X-tremely durable



MOSO® Bamboo X-treme® is engineered to last a lifetime. Thanks to a special, unique, Thermo-Density® production process, it is very durable. The proof is the 5 million m<sup>2</sup> already installed in different climates all over the world.

► [www.moso-bamboo.com/durable](http://www.moso-bamboo.com/durable)



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Juust  
Hans Gorter

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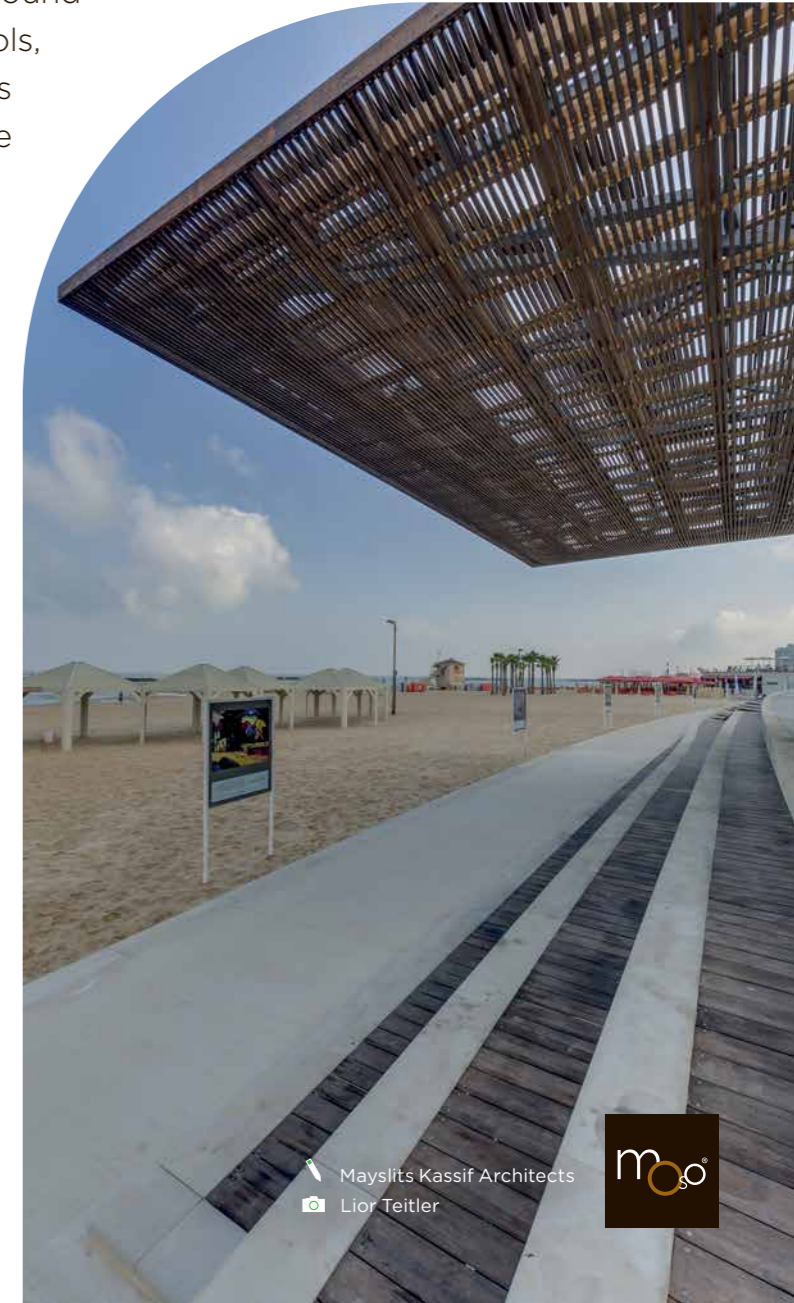
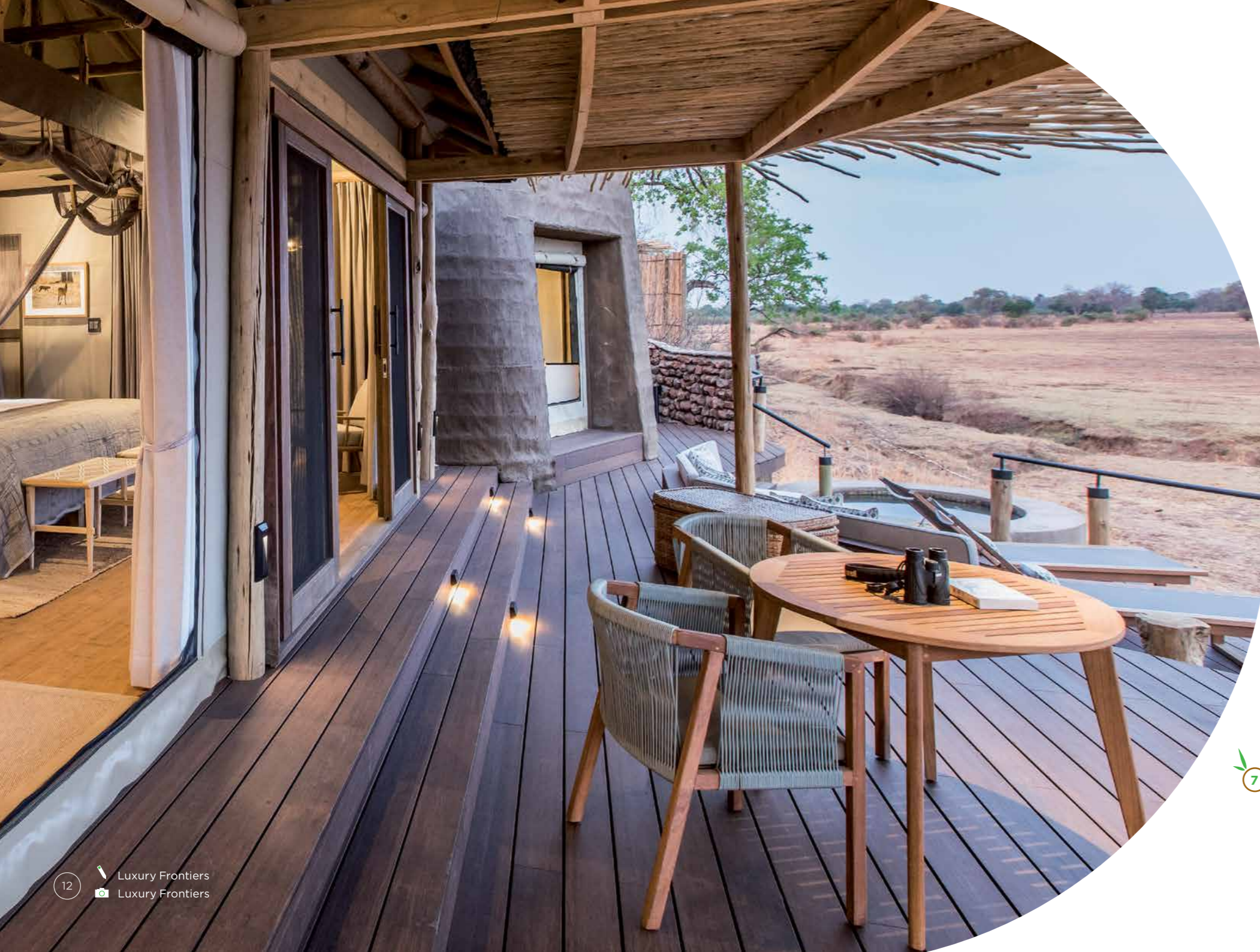
For more information about these references please go to page 28.

Lázaro Rosa-Violán  
Hotel Barcelona 1882



**X-tremely  
tough conditions**

High traffic, around swimming pools, near coastlines and in extreme climates.



# X-tremely stable

MOSO® Bamboo X-treme® is very stable, enabling the use of hidden MOSO® Fasteners to fix the boards. It is even possible to create special patterns, including the luxurious chevron installation. The superior stability has another major advantage: it allows an end-match system to create any length without big gaps.



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Tarik Hart



For more information  
about these references  
please go to page 28.



Ron Turner Studios

m<sub>o</sub>o





# X-tremely versatile

MOSO® Bamboo X-treme® Decking is available in different widths and thicknesses, depending on the finish and surface treatment a unique look can be created.

The boards are available with different surfaces: flat, grooved, curved, brushed, non-slip: just choose the one you like the best! In addition to Bamboo X-treme® Decking, we offer cladding and fencing boards.

Bamboo X-treme® Beams can be used for custom made stairs, furniture and shutters.



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Wouter Bink  
Peter Brugmans Fotografie



For more information  
about these references  
please go to page 28.



SPEE Architects  
Awood  
Ossip van Duivenbode





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MOSO®

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Wetz  
MOSO®



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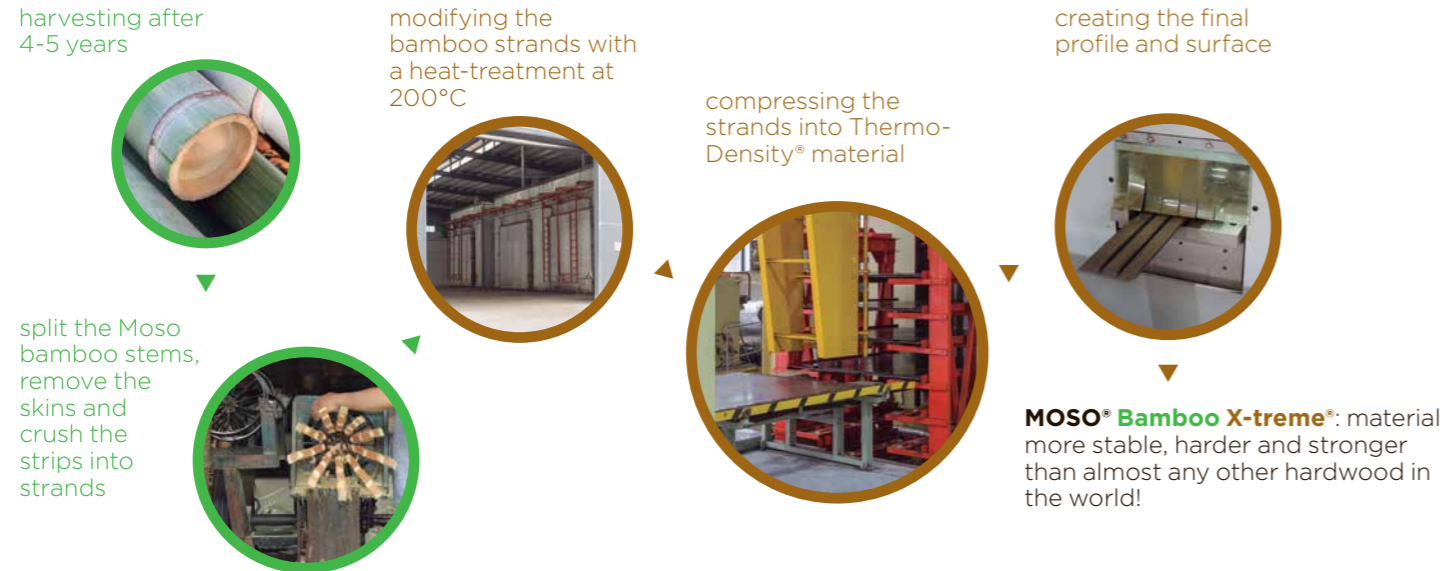
Stéphane Malka  
David Ducastel - Philéas Fotos

m<sub>o</sub>o®

# X-tremely well made



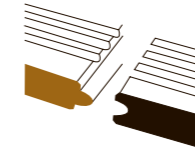
Moso bamboo is one of the fastest growing plants on earth. The bamboo stems grow from an underground root system and after 4-5 years a stem can be harvested, while the others continue to grow. This means the bamboo can be used without destroying the forest. After harvesting, the Moso bamboo stems are split and the outer and inner skins are removed. By modifying the bamboo strands with a unique Thermo-Density® process, the dimensional stability of bamboo is improved by circa 50%. The heat-treatment at 200°C also ensures protection against superficial fungi and provides the highest durability class possible. After compressing the heat-treated bamboo strands, the material is stronger and harder than almost any other hardwood. That is why we call it: MOSO® Bamboo X-treme®.



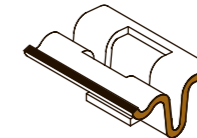
# X-tremely unique



**hard & durable**  
Biological durability Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test / Class 1 (EN 350 / CEN/TS 15083-1). Exceptionally hard: Brinell >9.5 kg/mm².



**high stability**  
Far more stable than bangkirai (yellow balau) and other tropical hardwoods - enabling an end-matched connection (impossible with any other hardwood).



**easy to install**  
Very easy to install and uninstall thanks to the fixed board length (1850 mm) and fixing with MOSO® Fasteners.



**economical**  
Simple and fast installation: up to 30% savings in costs! Reduced waste of material during installation because of end-match system.



**beautiful appearance**  
A beautiful, natural hardwood look. Choice between natural greying or retaining the brown colour with an exterior finish.



**endless resource**  
Made from bamboo, the fastest growing plant on earth. Each stem can be harvested after 4-5 years, and the plant continues to grow.



**CO2 neutral**  
Official LCA and carbon footprint studies (EN 15804) confirm that MOSO® Bamboo X-treme® is CO2 neutral during the product lifespan\*.



**fire resistant**  
Achieves flame spread index Class A following US standard ASTM E84 and fire resistance class Bfl-s1 following EN 13501-1, allowing application in public projects.

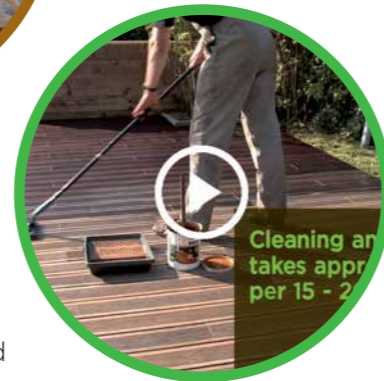
\*) This includes the CO2 (biogenic carbon - EN 16449) stored in the product.



# X-tremely complete



In addition to decking, MOSO® provides Bamboo X-treme® Sub frame joists, Fascia boards and maintenance products. With MOSO® Fasteners, no screws are visible on the boards which contributes to the beautiful appearance. Make use of the complete range to ensure the quality of the terrace.



## X-tremely easy

check out the Bamboo X-treme® installation and maintenance movie at:

► [www.moso-bamboo.com/](http://www.moso-bamboo.com/)  
[youtube/x-treme](https://www.youtube.com/watch?v=x-treme)

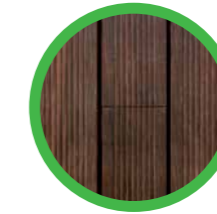


## appearance and colour

MOSO® Bamboo X-treme® is a natural product, which can vary in colour, grain and appearance. Colour will change over time depending on the maintenance schedule. The boards have a brown to dark brown colour when installed, which turns into a lighter caramel colour several weeks after installation. Without further maintenance the colour gets greyish relatively fast (similar to most other wood species).

## maintenance and cleaning

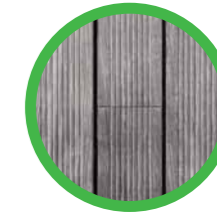
Under the influence of wind, rain, sun and snow the decking will weather. MOSO® recommends impregnating and maintaining the finished decking with Woca or Sikkens maintenance materials. It is recommended to finish the unfinished decking right after installation. Annual maintenance and cleaning should be performed using a cleaner and silicon carbide broom or machine disk (all maintenance products are available through MOSO®).



new, non-weathered decking



after 3 months of weathering

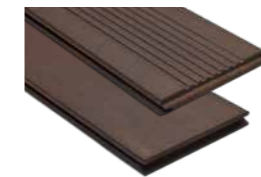


after 18 months of weathering

## around swimming pools

As with any wooden product used outdoors, there is always a risk of splinters arising, however splinters from MOSO® Bamboo X-treme® are normally smaller than (tropical) hardwood splinters. A regular cleaning, maintenance, and application of oil (more frequently around swimming pools) is recommended to keep the surface smooth. The boards must be installed in such a way that the surface water cannot flow directly into the pool.

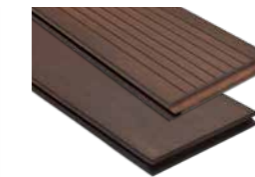
Board Standard Groove / Flat (reversible)



Board Curved



Board V-Groove / Brushed (reversible)



Sub frame joist



2 Non-slip lines



\*) Ends of the boards are protected with Sikkens Kodrin WV 456 sealer.

Product / Surface	Oiled Woca*	Sikkens Cetol*	Unfinished	Dimensions (mm)
Board Standard Groove/Flat	BO-DTHT171G	BO-DTHT171G-01	BO-DTHT170G	1850x137x20
Board Standard Groove/Flat	BO-DTHT371	BO-DTHT371-01	BO-DTHT370	1850x137x30
Board 2 Non-slip lines	BO-DTHT171G-AS2	BO-DTHT171G-01-AS2	BO-DTHT170G-AS2	1850x137x20
Board Standard Groove/Flat	BO-DTHT181G	BO-DTHT181G-01	BO-DTHT180G	1850x137x18
Board Standard Groove/Flat	BO-DTHT191G	BO-DTHT191G-01	BO-DTHT190G	1850x155x20
Board Curved	BO-DTHT191G-C	BO-DTHT191G-C-01	BO-DTHT190G-C	1850x155x20
Board V-groove/Rough Sanded	BO-DTHT191GV-R	BO-DTHT191GV-R-01	BO-DTHT190GV-R	1850x155x20
Board Standard Groove/Flat	BO-DTHT211G	BO-DTHT211G-01	BO-DTHT210G	1850x178x20
Board V-Groove/Brushed	BO-DTHT231GV-R	BO-DTHT231GV-R-01	BO-DTHT230GV-R	1850x208x20
Board Chevron Flat	BO-DTHT163G-CHV	BO-DTHT163G-CHV-01		566(703)x137x30/20
Sub frame joist			BO-SB155	2440x60x40
Fascia board Standard Groove/Flat	BO-DTHT171G1	BO-DTHT171G1-01	BO-DTHT170G1	1850x137x20

Product	Code
Fastener Asymmetric with screw (20 mm)	CLIP-SCREW-BX08
Fastener Asymmetric with screw (18 mm)	CLIP-SCREW-BX09
Fastener Start/End Top with screw (20 mm)	CLIP-SCREW-BX801

CLIP-SCREW-BX08/BX09



CLIP-SCREW-BX801



# X-tremely sustainable



MOSO® Bamboo X-treme® offers clear sustainable advantages and is even proven to be CO<sub>2</sub> neutral during the product lifespan! The inclusion of Bamboo X-treme® contributes to a higher LEED, BREEAM, Green Star, HQE and DGNB certification score for green building projects. That's one of the reasons why you can find MOSO® Bamboo X-treme® and other MOSO® products in many sustainable reference projects all over the world.

► [www.moso-bamboo.com/sustainability](http://www.moso-bamboo.com/sustainability)

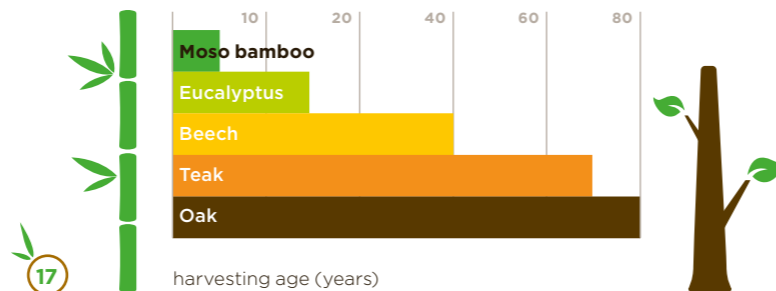


**breeam**  
★★★★★  
outstanding

## unsurpassed growing speed

### bamboo: the fastest growing plant in the world

Because of the fast growth, Moso bamboo is managed as an agricultural crop: the annual harvest of the 4 to 5-year-old stems - compared to 60-80 years for tropical hardwood! - provides a steady annual income to farmers and stimulates the bamboo plant to reproduce even faster. Therefore, by default, no deforestation occurs with production of MOSO® Bamboo X-treme®, while large amounts of CO<sub>2</sub> are captured in the bamboo forests and products ([www.inbar.int/understanding-bamboos-climatechange-potential](http://www.inbar.int/understanding-bamboos-climatechange-potential)).



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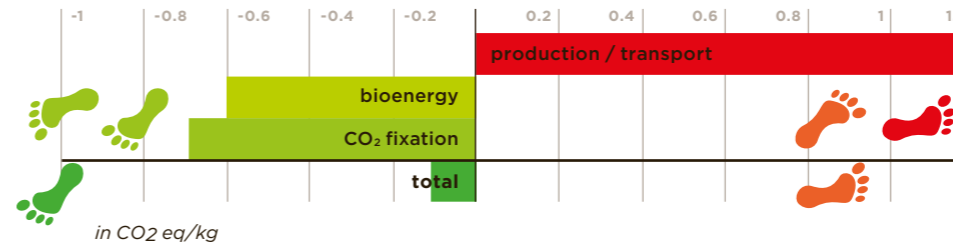
For more information about this reference please go to page 28.

## carbon footprint

### MOSO® Bamboo X-treme®: CO<sub>2</sub> neutral during the product lifespan\*

MOSO® has conducted an LCA and carbon footprint study together with Delft University of Technology (TU Delft) and INBAR. The report ([www.moso-bamboo.com/lca](http://www.moso-bamboo.com/lca)) concludes that all assessed MOSO® Products (all solid bamboo flooring, decking, beams, panels and veneer) are CO<sub>2</sub> negative during the product lifespan ("cradle till grave"). In this result the high growth rate of Moso bamboo has not even been taken into account, and can be perceived as additional environmental benefit. The environmental impact of MOSO® Products, excluding carbon sequestration effect, was also published in an official Environmental Product Declaration (EPD) following EN 15804 ([www.moso-bamboo.com/epd](http://www.moso-bamboo.com/epd)).

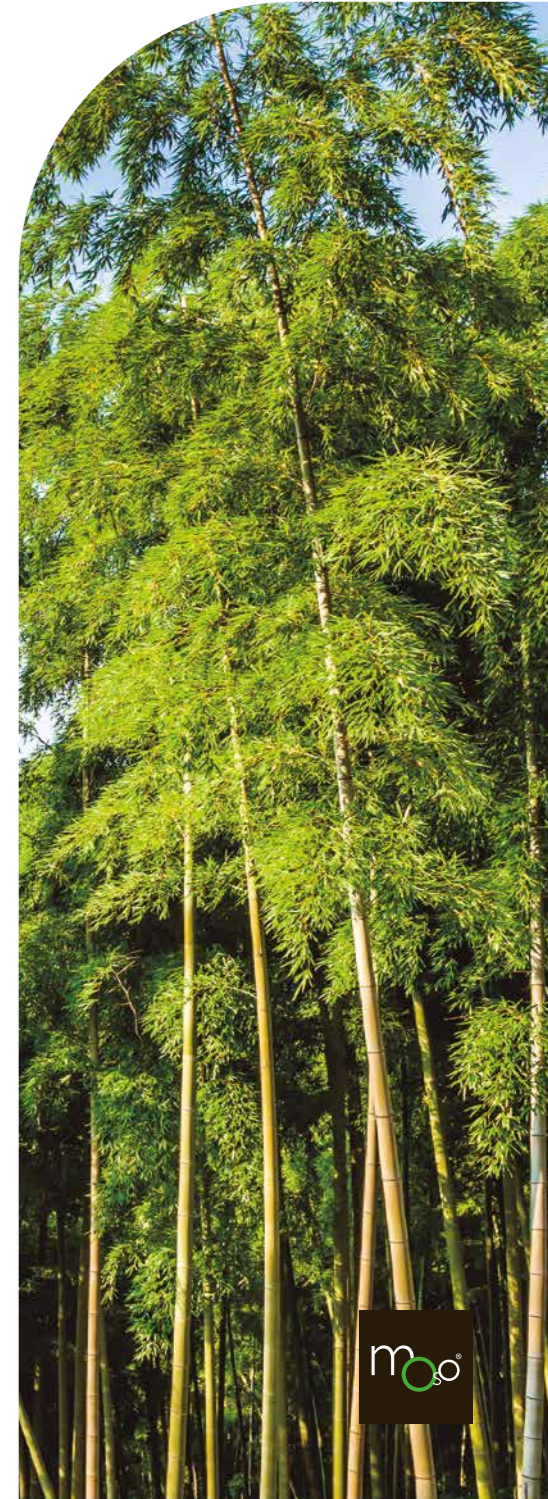
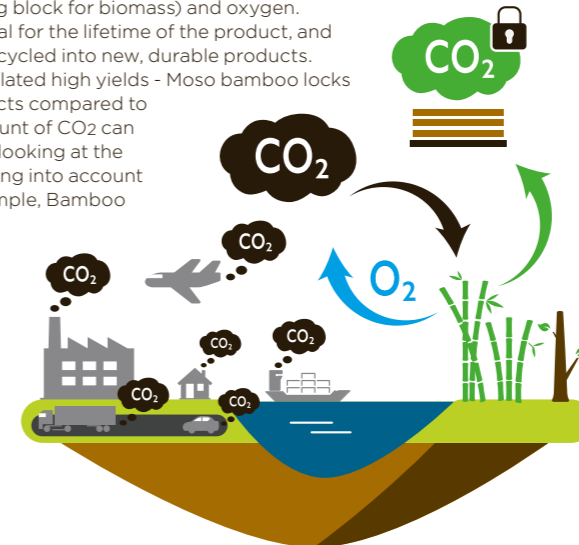
\* This includes the CO<sub>2</sub> (biogenic carbon - EN 16449) stored in the product.



## carbon storage in bamboo

### biobased materials act as CO<sub>2</sub> sinks

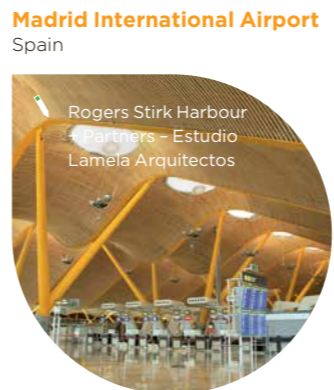
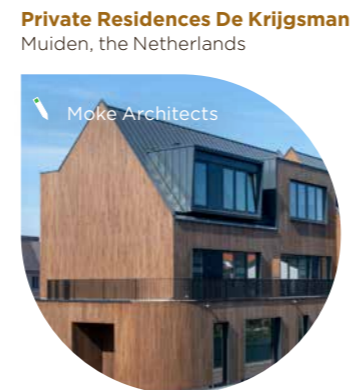
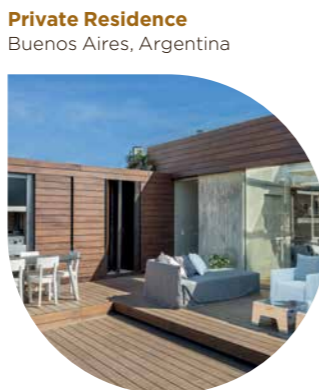
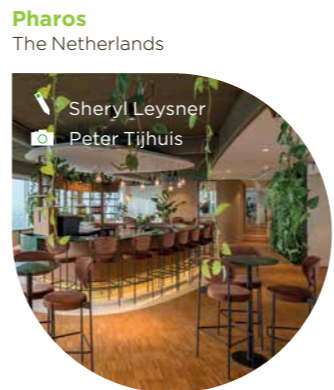
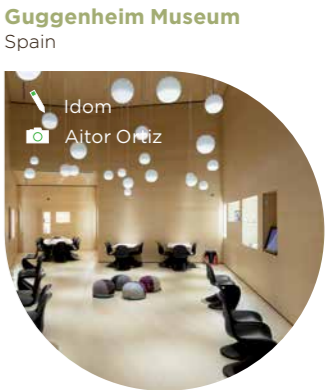
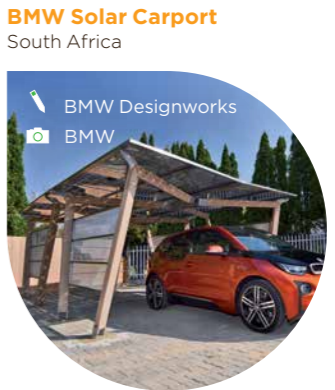
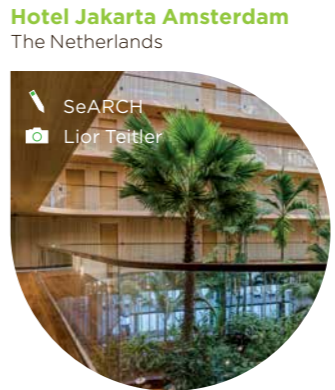
Through photosynthesis, plants absorb carbon dioxide (CO<sub>2</sub>) and convert it into glucose (building block for biomass) and oxygen. The CO<sub>2</sub> is stored in the material for the lifetime of the product, and even longer if the product is recycled into new, durable products. Due to the fast growth - and related high yields - Moso bamboo locks far more CO<sub>2</sub> in durable products compared to wood species. The locked amount of CO<sub>2</sub> can be calculated rather simply by looking at the density of the material and taking into account the biobased content. For example, Bamboo X-treme® locks almost 1.660 kg CO<sub>2</sub> per m<sup>2</sup> of bamboo, which is the equivalent of the CO<sub>2</sub> emissions of 14,000 km driven by a mid-range car.



moso

# X-treme® references

- 1 Apartment Dror Golan  
▶ [www.moso-bamboo.com/dror-golan](http://www.moso-bamboo.com/dror-golan)
- 2 Hotel W Barcelona  
▶ [www.moso-bamboo.com/hotel-w](http://www.moso-bamboo.com/hotel-w)
- 3 Private Residence Solana Beach  
▶ [www.moso-bamboo.com/solana](http://www.moso-bamboo.com/solana)
- 4 Wellness Residence Alpenrose  
▶ [www.moso-bamboo.com/alpenrose](http://www.moso-bamboo.com/alpenrose)
- 5 De Banjaard  
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- 6 Hotel 1882 Barcelona  
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- 11 Anantara Al Jabal Al Akhdar Resort  
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- 15 Renovation City Centre Leverkusen  
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- 16 Oxygen event complex  
▶ [www.moso-bamboo.com/oxygen](http://www.moso-bamboo.com/oxygen)
- 17 Venco Campus  
▶ [www.moso-bamboo.com/venco](http://www.moso-bamboo.com/venco)



Be inspired by hundreds of bamboo applications and countless projects made with a wide range of MOSO® bamboo products:  
▶ [www.moso-bamboo.com/references](http://www.moso-bamboo.com/references)



D.S Blay Architecture  
Shai Gil



## MOSO® Mastering Bamboo

MOSO® develops and creates bamboo products for interior and exterior applications that meet the highest technical requirements and quality standards, enhance the beauty of applications and are made from the sustainable, renewable resource Moso bamboo.

With 25 years' experience in the relatively young bamboo industry, MOSO® is recognised as the **global A-brand** in bamboo because of its focus on product **quality, innovation** and **sustainability**. With an international team and partners in more than 50 countries, MOSO® is continuously looking for new applications and solutions that can be made with the fastest growing plant of the world. The proof is the impressive list of reference projects showcasing **endless possibilities** with MOSO® Bamboo Products.

Besides MOSO® Bamboo Outdoor products, MOSO® offers a very broad assortment of **Bamboo Flooring, Panels, Beams, Veneer** and **Flexbamboo** in various sizes, thicknesses, colours and textures. These products are used worldwide in various applications ranging from wall covering, ceilings, window frames and doors to stairs, furniture and kitchens, providing an ideal combination with the MOSO® Outdoor assortment.

Furthermore, because of its expertise, MOSO® is able to develop **unique, customised bamboo solutions** for industrial clients, meeting exceptionally stringent requirements. Through its experience, innovative attitude and worldwide 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), and CitizenM Hotels. For an overview of our references and clients please visit our website: [www.moso-bamboo.com/references](http://www.moso-bamboo.com/references)



Since 2008 over  
5 million m<sup>2</sup> installed in  
more than 60 countries





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Mastering  
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EN-2022