

**MOSO<sup>®</sup>**  
**Bamboo X-treme<sup>®</sup>**  
certified and  
sustainable  
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**.

X-tremely beautiful 6



X-tremely durable 10



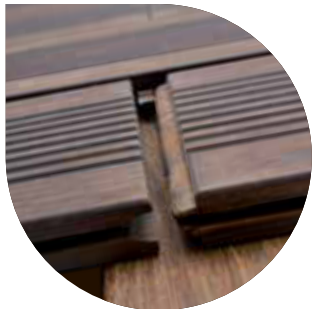
X-tremely stable 14



X-tremely versatile 18



X-tremely unique 23



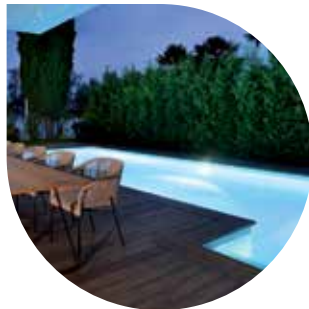
X-tremely complete 24



X-tremely sustainable



26 X-tremely proven 31





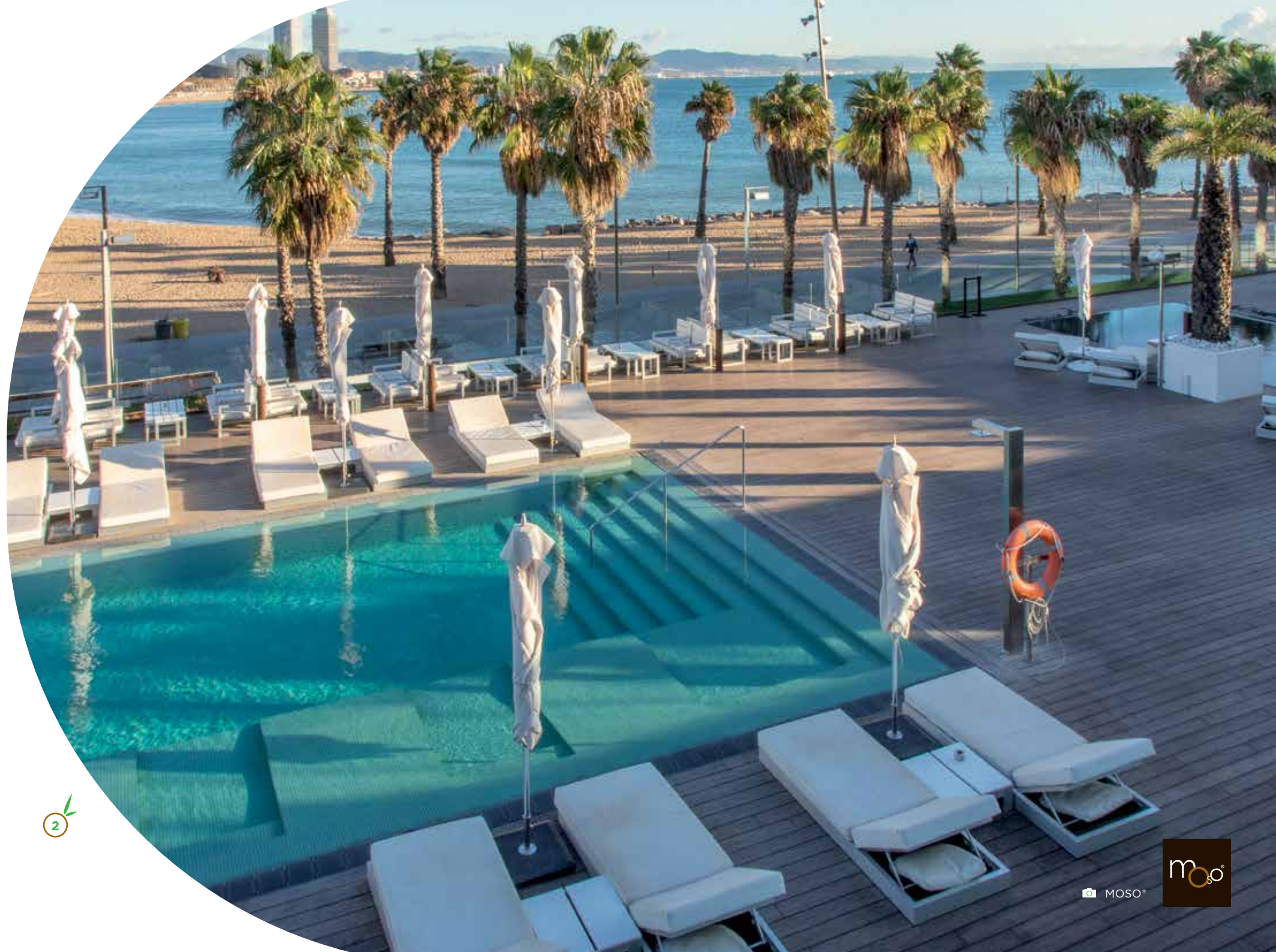
# X-tremely beautiful

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.



1

2



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

6 Dror Golan  
Lior Teitler





3

4

8

Fraser Decks & Patio Covers  
Reily Imagery

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



Haladesign Landschaftsplanung  
Qin (Andy Andresen)



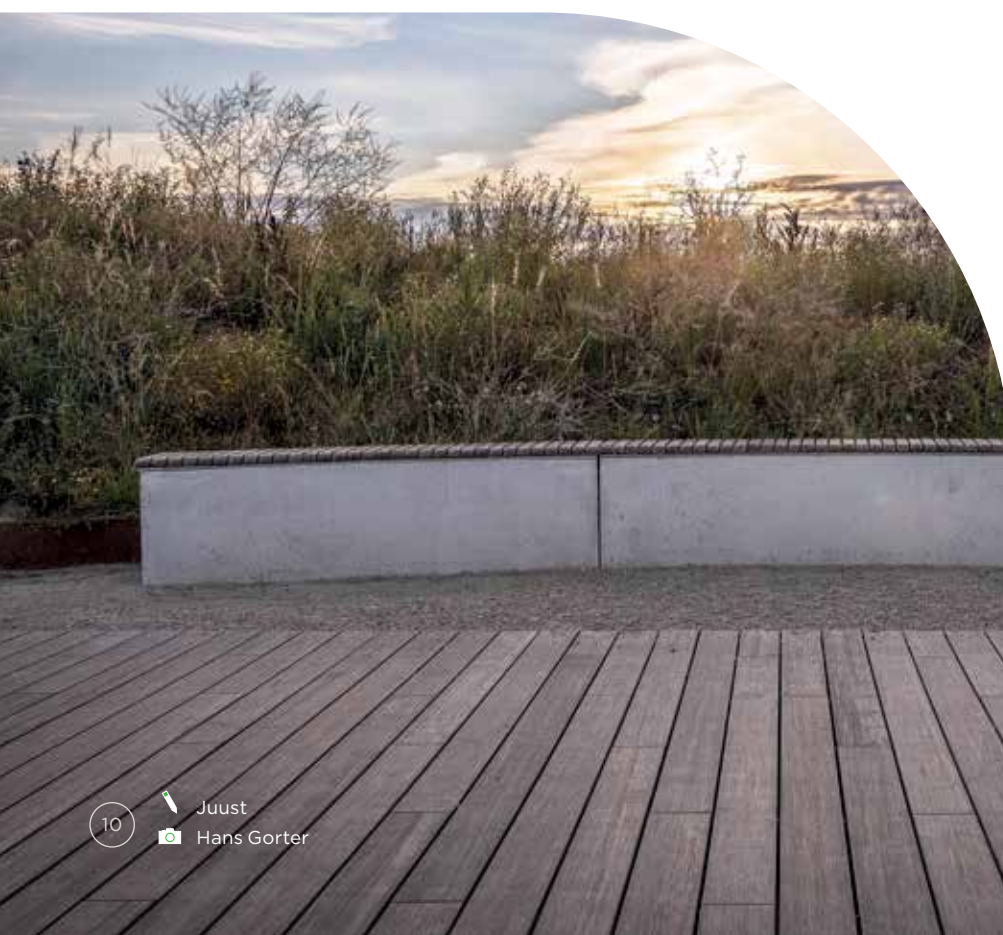


# X-tremely durable



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 4 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)



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



**X-tremely  
tough conditions**

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



7

8





# 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. The superior stability has another major advantage: it allows an end-match system to create any length without big gaps.



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



Ron Turner Studios









# 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, rough sanded: 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.



18

Wouter Bink  
Peter Brugmans Fotografie



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



SPEE Architects  
Awood  
Ossip van Duivenbode







20

MOSO®

14

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



15

Wetz  
MOSO®



16

Stéphane Malka  
David Ducastel - Philéas Fotos

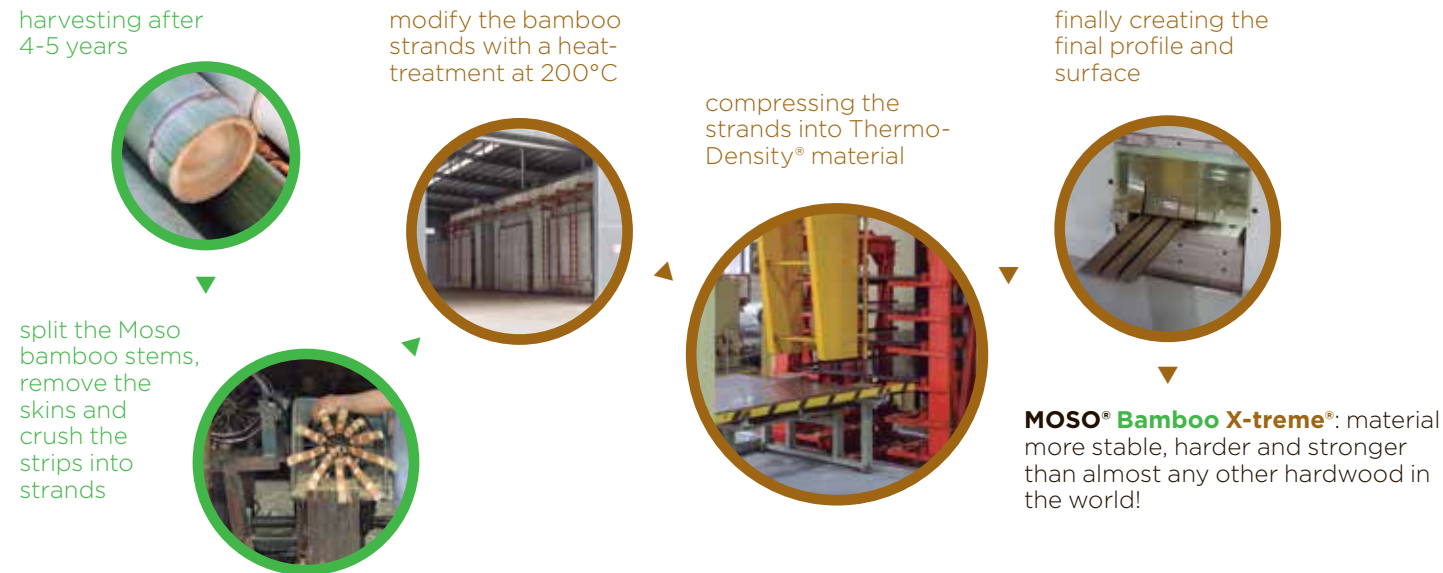
MOSO®



# X-tremely well made



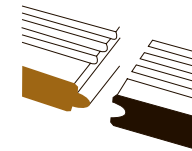
Moso bamboo is one of the fastest growing plants on earth. The bamboo stems grow from an underground root system and after 4-5 years a stem can be harvested, while the others continue to grow. This means the bamboo can be used without destroying the forest. After harvesting, the Moso bamboo stems are 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®.



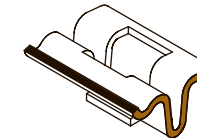
# X-tremely unique



**hard & durable**  
Bamboo decking with Durability Class 1 (EN 350) tested following CEN/TS 15083-2 (simulated graveyard test). Exceptionally hard: Brinell >9.5 kg/mm².



**high stability**  
Far more stable than bangkirai (yellow balau) and other tropical hardwoods - enabling tongue and groove end-matched installation (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 because of tongue and groove end-matched installation.



**beautiful appearance**  
A beautiful, natural hardwood look. Choice of natural greying or keeping brown colour through maintenance.



**endless resource**  
Made from Moso 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 (ISO 14040/44) confirm that Bamboo X-treme® is CO2 neutral over the full life cycle.



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

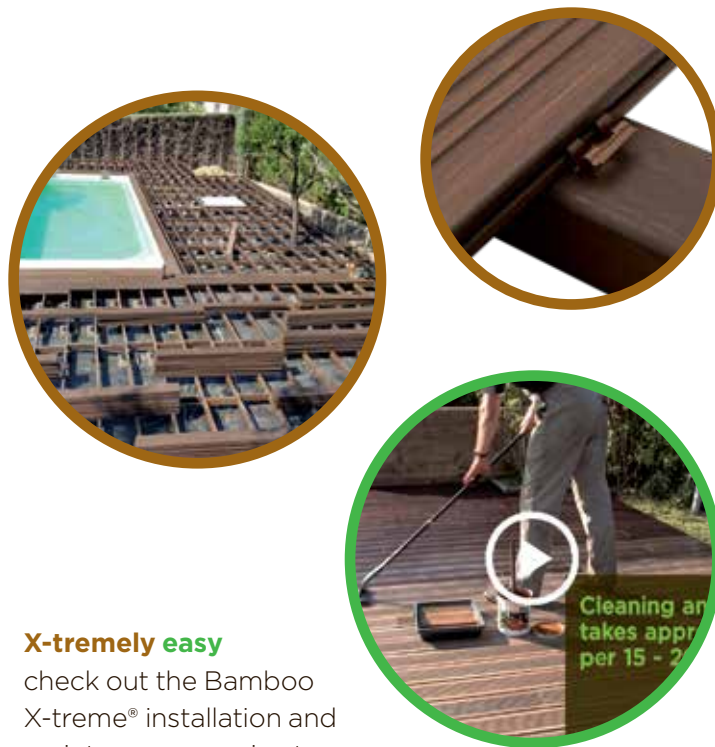




# X-tremely complete



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

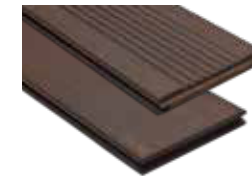
after 3 months of weathering

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.

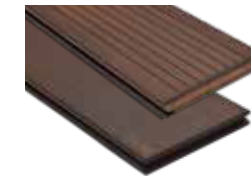
Board Standard Groove / Flat (reversible)



Board Curved



Board V-Groove / Rough Sanded (reversible)



Sub frame joist



Fascia board Standard Groove / Flat (reversible)



\*) 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 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
Sub frame joist			BO-SB155	2440x60x40
Fascia board Standard Groove/Flat	BO-DTHT163	BO-DTHT163-01	BO-DTHT162	1850x137x20

Product	Code	CLIP-SCREW-BX08/BX09	CLIP-SCREW-BX301	CLIP-SCREW-BX801
Fastener Asymmetric with screw (20 mm)	CLIP-SCREW-BX08			
Fastener Asymmetric with screw (18 mm)	CLIP-SCREW-BX09			
Fastener Start/End Side/Top with screw (20 mm)	CLIP-SCREW-BX301			
Fastener Start/End Top with screw (20 mm)	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 over its full life cycle! The inclusion of Bamboo X-treme® contributes to a higher LEED, BREEAM and Green Star 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)

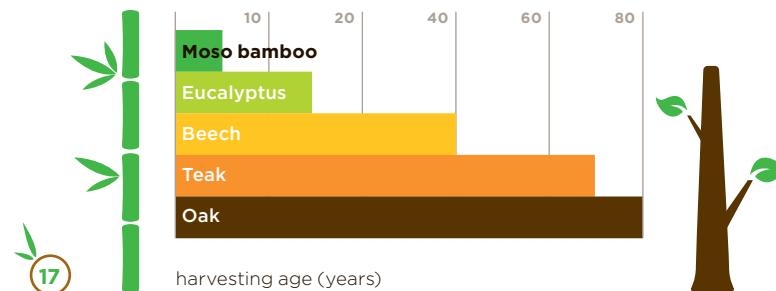


**bream**  
★★★★★  
outstanding

## 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)).



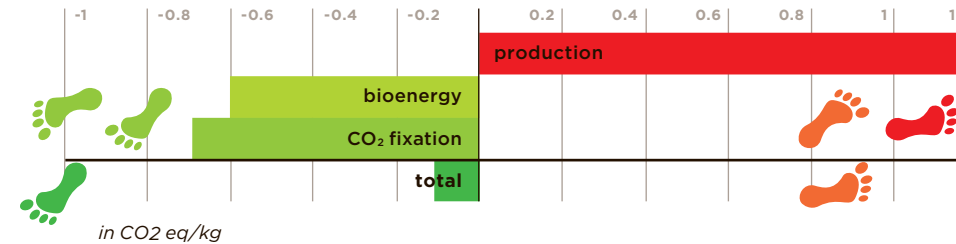
17

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

## carbon footprint

### MOSO® Bamboo X-treme®: CO<sub>2</sub> neutral over full life cycle

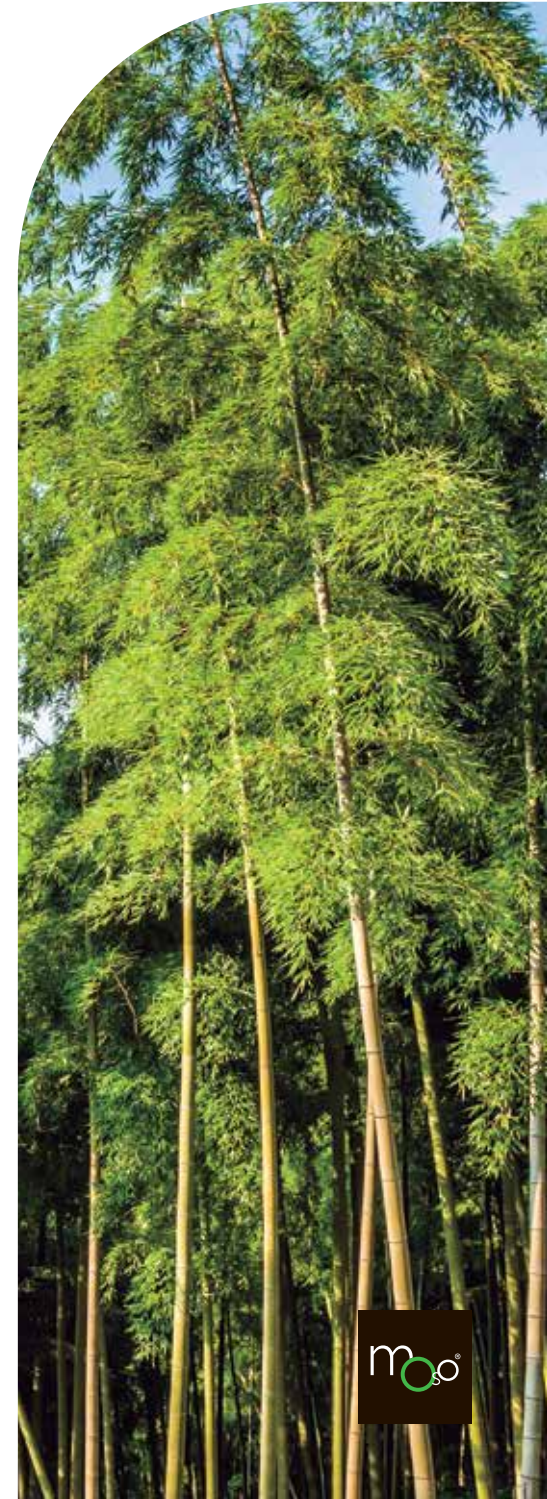
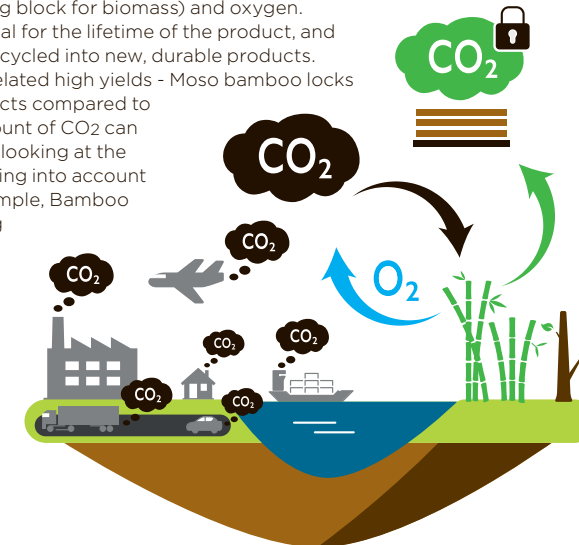
MOSO® has conducted an LCA and carbon footprint study together with Delft University of Technology (TU Delft) and INBAR. The report ([www.moso-bamboo.com/lca](http://www.moso-bamboo.com/lca)) concludes that all assessed MOSO® Products (all solid bamboo flooring, decking, beams, panels and veneer) are CO<sub>2</sub> negative over the full life cycle ("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)).



## carbon storage in bamboo

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

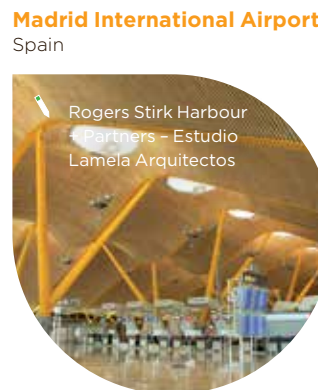
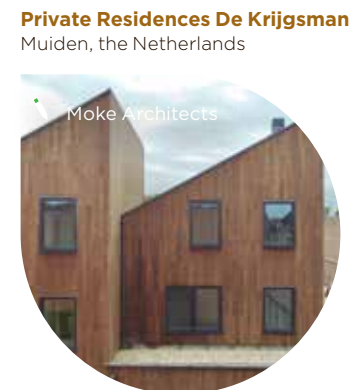
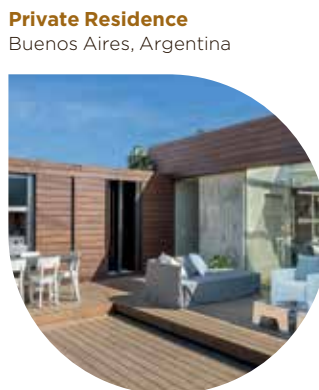
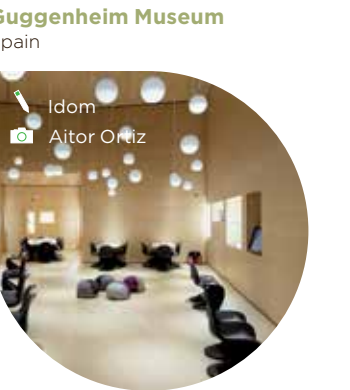
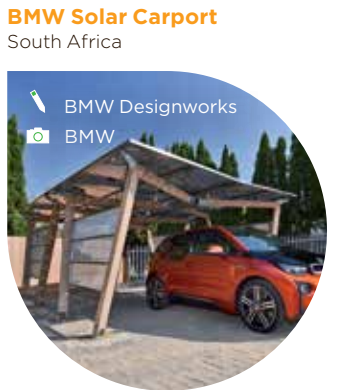
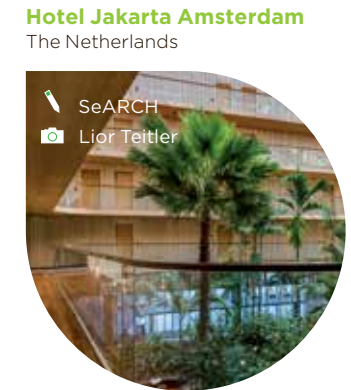
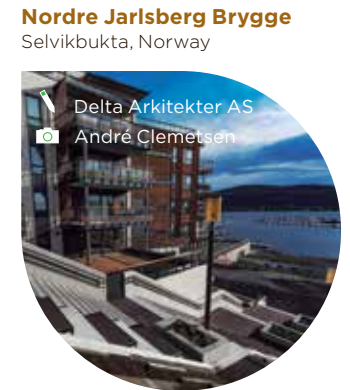
Through photosynthesis, plants absorb carbon dioxide (CO<sub>2</sub>) and convert it into glucose (building block for biomass) and oxygen. The CO<sub>2</sub> is stored in the material for the lifetime of the product, and even longer if the product is recycled into new, durable products. Due to the fast 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 1.700 kg CO<sub>2</sub> per m<sup>3</sup> of bamboo, which is the equivalent of the CO<sub>2</sub> emissions of 14.250 km driven by a mid-range car.





# 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  
▶ [www.moso-bamboo.com/banjaard](http://www.moso-bamboo.com/banjaard)
- 6 Hotel 1882 Barcelona  
▶ [www.moso-bamboo.com/hotel-1882](http://www.moso-bamboo.com/hotel-1882)
- 7 Lodge Puku Ridge  
▶ [www.moso-bamboo.com/puku](http://www.moso-bamboo.com/puku)
- 8 Beach promenade Tel-Aviv  
▶ [www.moso-bamboo.com/promenade](http://www.moso-bamboo.com/promenade)
- 9 Private Residence Casa Blanca  
▶ [www.moso-bamboo.com/casa-blanca](http://www.moso-bamboo.com/casa-blanca)
- 10 Marine Dock Candlewood Lake  
▶ [www.moso-bamboo.com/candlewood-lake](http://www.moso-bamboo.com/candlewood-lake)
- 11 Hotel Villa Elena  
▶ [www.moso-bamboo.com/hotel-elena](http://www.moso-bamboo.com/hotel-elena)
- 12 Garden house  
▶ [www.moso-bamboo.com/garden-house](http://www.moso-bamboo.com/garden-house)
- 13 SPEEHOUSE  
▶ [www.moso-bamboo.com/spee](http://www.moso-bamboo.com/spee)
- 14 MOSO office Barcelona  
▶ [www.moso-bamboo.com/moso-barcelona](http://www.moso-bamboo.com/moso-barcelona)
- 15 Renovation City Centre Leverkusen  
▶ [www.moso-bamboo.com/leverkusen](http://www.moso-bamboo.com/leverkusen)
- 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





## about MOSO®

MOSO International was founded in the Netherlands in 1997. Since then, MOSO® has evolved to become the unchallenged **global market leader** in the development of innovative and sustainable bamboo products for interior and exterior applications.

There is no other company worldwide with an equally – and still expanding – **broad assortment** in **high quality** bamboo products. MOSO's head office, with the **biggest bamboo warehouse** in Europe, is located near Amsterdam. Furthermore, MOSO® has offices in Barcelona, Milan, Cape Town, Milford (USA), Dubai and Hangzhou (China). MOSO® works with several partner companies and leading distributors worldwide to **guarantee the availability** of MOSO® products in each region.

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  
4 million m<sup>2</sup>  
installed in  
more than  
60 countries





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moso®

bamboo  
x-treme

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