

MOSO[®]

Bamboo Outdoor

Stable, sustainable
and certified bamboo
decking

m_oso[®]



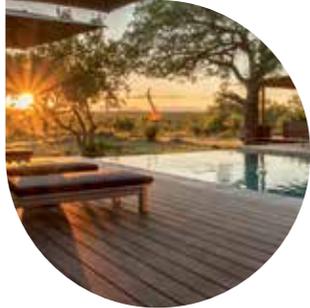
Bamboo locks
enormous amounts
of CO₂

Bamboo: the fastest
growing plant
in the world

MOSO® Bamboo Outdoor

MOSO® Bamboo Outdoor Decking comes in two colours: the **dark brown Bamboo X-treme®** and brown **caramel Bamboo N-durance®**. Both can be used to create a **beautiful deck, balcony, swimming pool area** or other **outdoor space** and are truly **ecological** and **durable** alternatives for increasingly scarce tropical hardwood and non-renewable materials. The **MOSO® Bamboo Outdoor Collection** consists of a wide range of products including **cladding, fencing, and beams**.

Beautiful 6



Durable 10



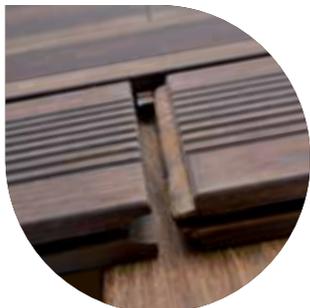
Stable 14



Versatile 18



Unique 23



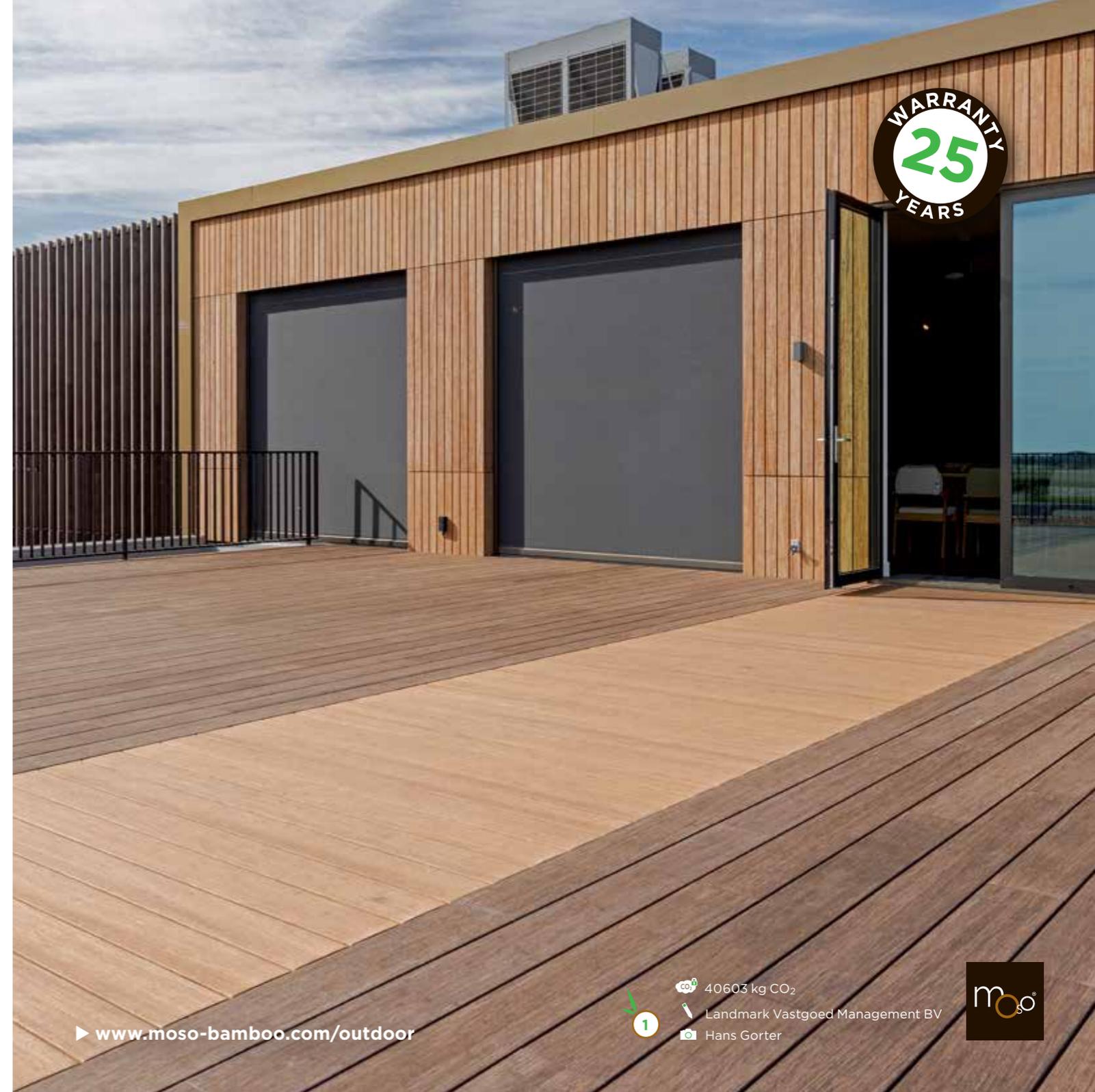
Complete 24



Sustainable 26



Proven 31



▶ www.moso-bamboo.com/outdoor

1 40603 kg CO₂
Landmark Vastgoed Management BV
Hans Gorter



Beautiful

Enrich any garden, balcony or roof area with MOSO® Bamboo X-treme® and Bamboo N-durance®: the natural, fast growing alternatives to hardwood. Similar to hardwood, the look can be determined depending on the finish.



6

Maisani Bois
Eric Portugalli

2

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

3



29910 kg CO₂

Imagine Africa Luxury Tented Camp
Tim Baynham - Wildlife Safety Solutions





130995 kg CO₂

Brenac & Gonzalez et Associés

MOSO

4

5

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



Haladesign Landschaftsplanung

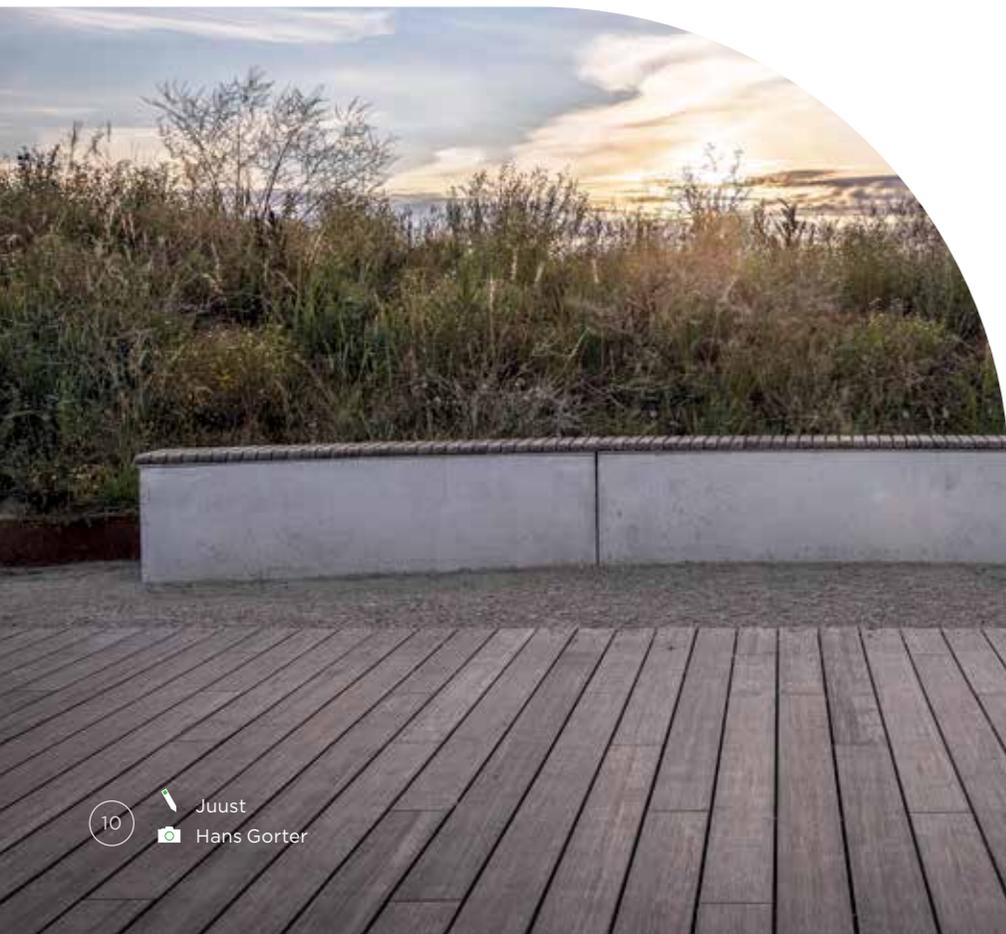
Qin (Andy Andresen)



Durable

MOSO® Bamboo Outdoor products are engineered to last a lifetime. Thanks to a special Thermo-Density® (Bamboo X-treme®) or Outdoor-Density® (Bamboo N-durance®) production process, they are very durable. The proof is in the more than 7 million m² already installed in different climates all around the world.

► www.moso-bamboo.com/durable



10

Juust
Hans Gorter

6

7

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



Quiet Studios
Pedro Machado



Tough conditions

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



2130240 kg CO₂
Kengo Kuma
Red Sea Global - The St. Regis Red Sea Resort

8

9

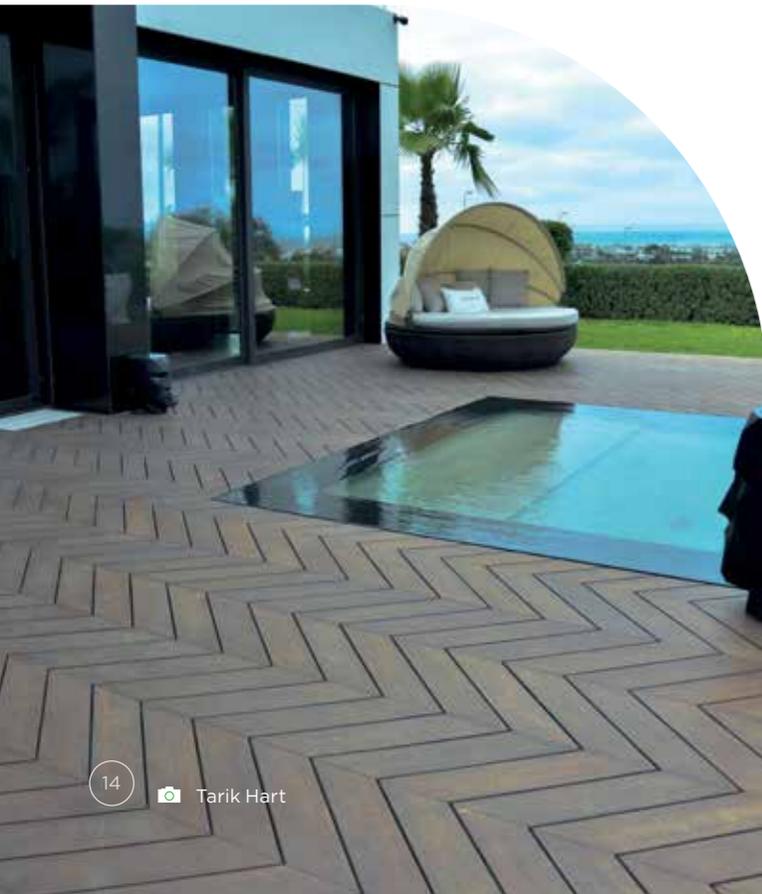
For more information about these references please go to page 28.

Progetto di Ar.En. Studio Associato - architetti Paola Rita Farè e Luca Michelon



Stable

MOSO® Bamboo X-treme® and Bamboo N-durance® Decking are 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.



14

Tarik Hart



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



Alvaro Jose Pereira



Versatile

MOSO® Bamboo X-treme® and Bamboo N-durance® Outdoor Decking boards are available in different widths and thicknesses and, 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 MOSO® Bamboo Outdoor Decking, we offer cladding and fencing boards. Bamboo X-treme® and N-durance® Outdoor Beams can also be used for custom made stairs, furniture and shutters.



16

📷 Gianluca Ricci



12



13

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



📍 SPEE Architects
📍 Awood
📍 Ossip van Duivenbode





18

MOSO®

14

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



15

Wetz
MOSO®



16

Stéphane Malka
David Ducastel - Philéas Fotos

moso®

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. Each year new shoots sprout from the root system. This means the bamboo can be used without harming 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 special Thermo-Density® (X-treme®) or Outdoor-Density® (N-durance®) process, the dimensional stability of bamboo is improved by about 50%. The heat-treatment (X-treme®) or steam-pressure treatment (N-durance®) provides the highest durability class possible. The material is stronger and harder than almost any other hardwood.

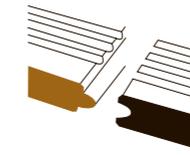


Unique benefits



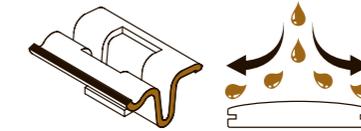
Hard & durable

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. Decking with the curved surface can be installed without a slope. Thanks to this curved surface, fast drainage from the boards is guaranteed.



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. A warm ambience is added to any project with Bamboo X-treme® and Bamboo N-durance®.



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.



Stored Carbon

Due to the fast growth - and related high yields - Moso bamboo locks far more CO₂ in durable products compared to wood species. It is possible to measure (or calculate) the amount of carbon stored in your project, so feel free to contact our bamboo experts to get more information.



Fire resistant

Achieves fire resistance Class Bfl-s1 (decking) and B-s1-d0 (cladding, fencing, beams) (EN 13501-1) without use of fire retardants. Can be easily applied in public projects without additional protective measures.

Complete

In addition to decking, MOSO® provides bamboo sub frame joists, fascia boards, edge profiles 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 deck.



Easy

Check out the Bamboo X-treme® and Bamboo N-durance® installation and maintenance movies at:

- ▶ www.moso-bamboo.com/youtube/x-treme
- ▶ www.moso-bamboo.com/youtube/n-durance



MOSO® Bamboo N-durance®

When looking for the most beautiful decking boards to fit into a modern outdoor space or stylish garden, Bamboo N-durance® is the right product. The brown caramel colour suits every design and creates a warm ambience. The flat, curved or grooved side of the boards are suitable for various applications and, above all, ensure a luxurious appearance.



Protected with superficial preservative against surface fungi. *) Ends of the boards are protected with Sikkens Kodrin WV 456 sealer.

Product / Surface	Oiled Woca*	Sikkens Cetol Ipe*	Unfinished	Dimensions (mm)
Board Standard Groove/Flat	BO-DTC171G	BO-DTC171G-01		1850x137x20
Board Curved	BO-DTC191G-C	BO-DTC191G-C-01		1850x155x20
Sub frame joist Outdoor-Density*			BO-SB355	2440x60x40
Fascia board, 1 edge groove	BO-DTC171G1	BO-DTC171G1-01		1850x137x20
Edge profile, 2 edge grooves	BO-DTCBN171G	BO-DTCBN171G-01		1850x65x30/20

Product	Code
Fastener Asymmetric with screw (20 mm)	CLIP-SCREWBX08
Fastener Start/End Top with screw (20 mm)	CLIP-SCREWBX802
Screw for aluminium sub frame joist	SCREW-09



MOSO® Bamboo X-treme®

The extreme stability of the Bamboo X-treme® material ensures a very durable bamboo deck, with a natural beauty similar to hardwoods. The boards have a brown to dark brown colour when installed and, like any hardwood species when exposed to the weather, Bamboo X-treme® will turn grey over time.



MOSO®

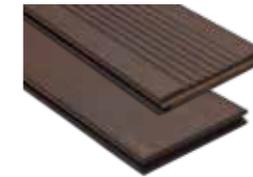


New, unweathered decking.

After 3 months of weathering.

After 18 months of weathering.

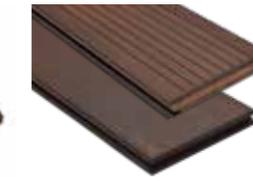
Board Standard Groove / Flat (reversible)



Board Curved



Board V-Groove / Brushed (reversible)



Sub frame joist



Board 2 Non-slip lines



Edge profile



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

Product / Surface	Oiled Woca*	Sikkens Cetol*	Unfinished	Dimensions (mm)
Board Standard Groove/Flat	BO-DTHT171G	BO-DTHT171G-01/02**	BO-DTHT170G	1850x137x20
Board Standard Groove/Flat	BO-DTHT181G	BO-DTHT181G-01	BO-DTHT180G	1850x137x18
Board 2 Non-slip lines	BO-DTHT171G-AS2	BO-DTHT171G-01-AS2		1850x137x20
Board Standard Groove/Flat	BO-DTHT371	BO-DTHT371-01	BO-DTHT370	1850x137x30
Board Standard Groove/Flat	BO-DTHT191G	BO-DTHT191G-01	BO-DTHT190G	1850x155x20
Board Curved	BO-DTHT191G-C	BO-DTHT191G-C-01		1850x155x20
Board Curved/Brushed	BO-DTHT191G-C-R			1850x155x20
Board V-Groove/Brushed	BO-DTHT191GV-R	BO-DTHT191GV-R-01		1850x155x20
Board Standard Groove/Flat	BO-DTHT211G	BO-DTHT211G-01	BO-DTHT210G	1850x178x20
Board Curved/Brushed	BO-DTHT211G-C-R			1850x178x20
Board V-Groove/Brushed	BO-DTHT231GV-R	BO-DTHT231GV-R-01		1850x208x20
Board Chevron Flat	BO-DTHT163G-CHV	BO-DTHT163G-CHV-01		566(703)x137x20
Sub frame joist			BO-SB155	2440x60x40
Fascia board Standard Groove/Flat	BO-DTHT171G1	BO-DTHT171G1-01	BO-DTHT170G1	1850x137x20
Edge profile, 2 edge grooves	BO-DTHTBN171G	BO-DTHTBN171G-01		1850x65x30/20

Product	Code
Fastener Asymmetric with screw (20 mm)	CLIP-SCREWBX08
Fastener Asymmetric with screw (18 mm)	CLIP-SCREWBX09
Fastener Start/End Top with screw (20 mm)	CLIP-SCREWBX802
Screw for aluminium sub frame joist	SCREW-09
Chevron installation tool	CHEVRON-TOOL01



Sustainable

The MOSO® Bamboo Outdoor range offers clear sustainable advantages. The inclusion of Bamboo X-treme® and Bamboo N-durance® 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 Outdoor products and other MOSO® products in many sustainable reference projects all over the world. FSC® is globally recognised as one of the best and most stringent responsible forestry certification system in the wood industry. MOSO® can provide, on prior request, all solid bamboo products with an FSC®-certification.

► www.moso-bamboo.com/sustainability



The mark of responsible forestry
FSC® C002063

Products available with FSC® certification on request.

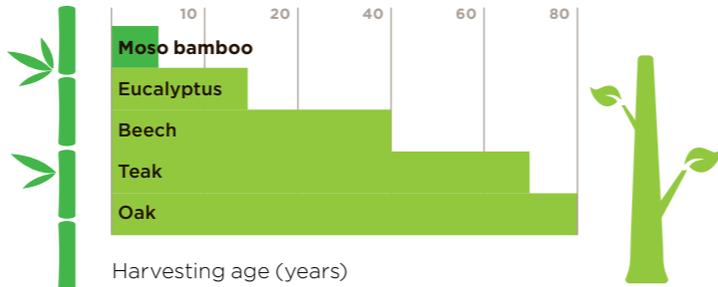


17

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 Products, while large amounts of CO₂ are captured in the bamboo forests and products (www.inbar.int/understanding-bamboos-climatechange-potential).



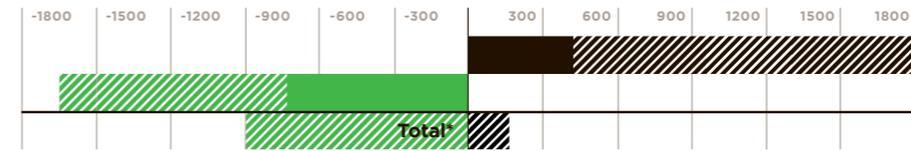
For more information about this reference please go to page 28.

Carbon footprint

MOSO® Bamboo Products environmental studies

MOSO® has conducted several LCA studies, including carbon footprint studies together with Delft University of Technology (TU Delft) and NIBE (LCA experts). The 2015 LCA report, available at www.moso-bamboo.com/lca, was the first of its kind and resulted in many new findings about the carbon footprint of bamboo products. The environmental impact of MOSO® Bamboo Products, excluding the carbon sequestration effect, has also been published in 2016 and updated in 2022 in an official Environmental Product Declaration (EPD) following EN 15804 (www.moso-bamboo.com/epd).

Construction Stored Carbon (CSC) vs. production and transport



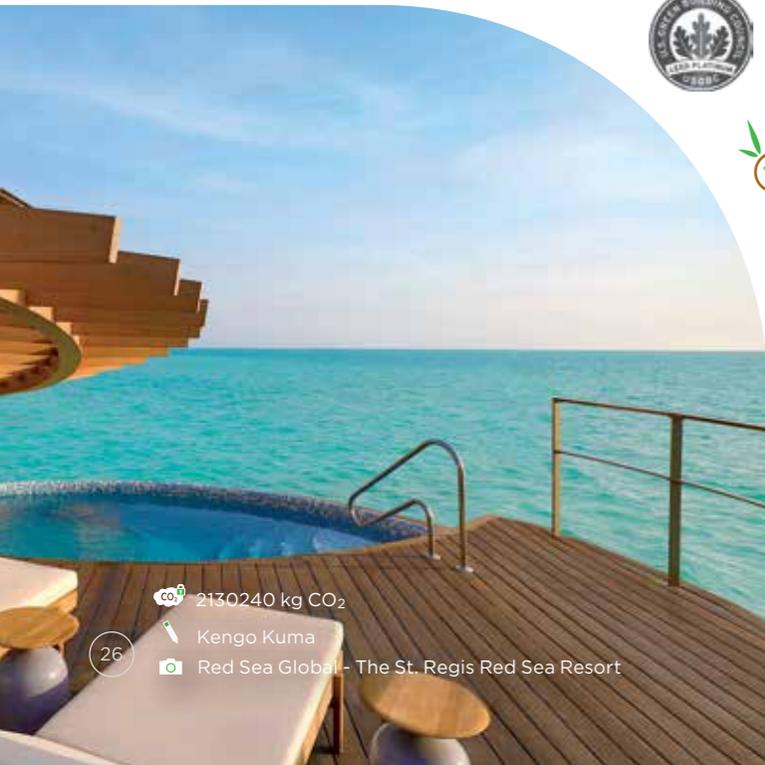
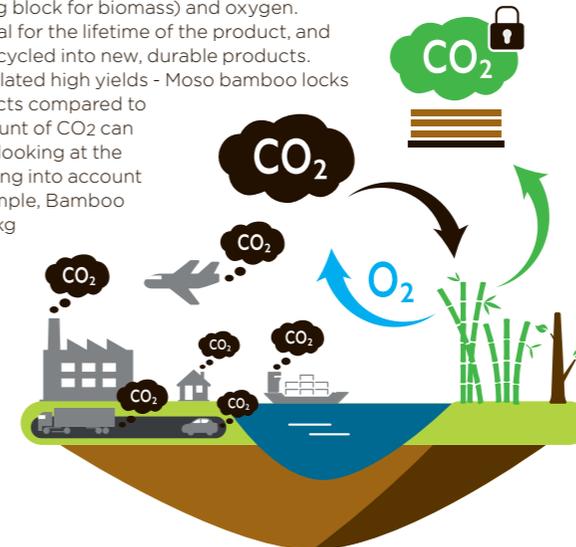
in kg CO₂ eq/m³ product
*) Result depending on MOSO® Product assessed



Carbon storage in bamboo

Biobased materials act as CO₂ sinks

Through photosynthesis, plants absorb carbon dioxide (CO₂) and convert it into glucose (building block for biomass) and oxygen. The CO₂ 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 CO₂ in durable products compared to wood species. The locked amount of CO₂ 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 just over 1.660 kg CO₂ per m³ of bamboo, which is the equivalent of the CO₂ emissions of 14,000 km driven by a mid-range car.



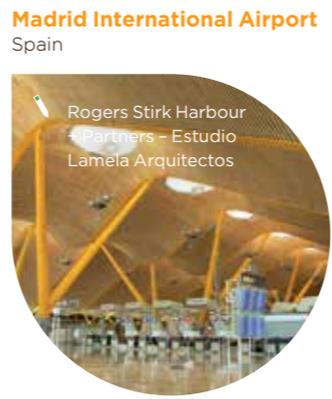
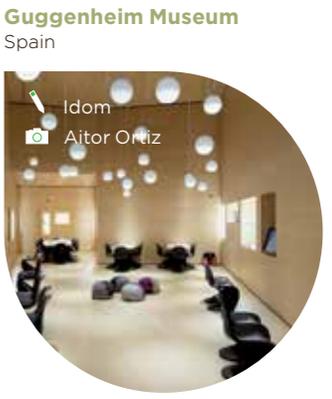
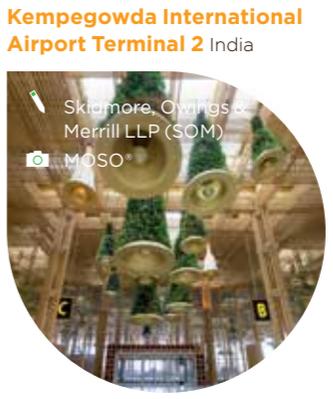
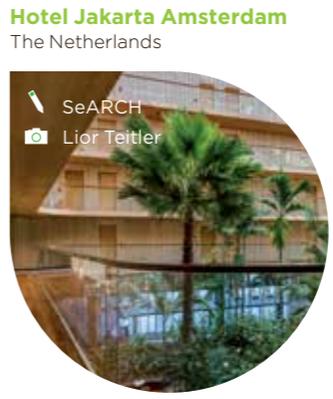
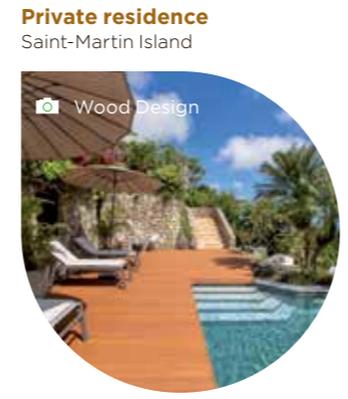
2130240 kg CO₂

Kengo Kuma

Red Sea Global - The St. Regis Red Sea Resort

References

- 1 **MOSO® Headoffice**
▶ www.moso-bamboo.com/moso-headoffice
- 2 **Private villa in the French Rivera**
▶ www.moso-bamboo.com/rivera
- 3 **Imagine Africa Luxury Tented Camp**
▶ www.moso-bamboo.com/imagine
- 4 **Higher Roch Tower**
▶ www.moso-bamboo.com/higher-roch
- 5 **Wellness Residence Alpenrose**
▶ www.moso-bamboo.com/alpenrose
- 6 **De Banjaard**
▶ www.moso-bamboo.com/banjaard
- 7 **Salty Hotel**
▶ www.moso-bamboo.com/salty
- 8 **The Red Sea - The St. Regis Red Sea Resort**
▶ www.moso-bamboo.com/red-sea
- 9 **Private Residence Sardegna**
▶ www.moso-bamboo.com/sardegna
- 10 **Private Residence Casablanca**
▶ www.moso-bamboo.com/casablanca
- 11 **Private Residence Vouzela**
▶ www.moso-bamboo.com/vouzela
- 12 **Gallia Palace Beach Golf & Spa Resort**
▶ www.moso-bamboo.com/gallia
- 13 **SPEEHUIS**
▶ www.moso-bamboo.com/speehuis
- 14 **Luxurious garden**
▶ www.moso-bamboo.com/bali-arnhem
- 15 **RUD Ketten Solaris sun lounger**
▶ www.moso-bamboo.com/rud-ketten
- 16 **Oxygen event complex**
▶ www.moso-bamboo.com/oxygen
- 17 **The Red Sea - The St. Regis Red Sea Resort**
▶ www.moso-bamboo.com/red-sea
- 18 **Madwaleni River Lodge**
▶ www.moso-bamboo.com/madwaleni



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



D.S Blay
Architecture
Shai Gil



MOSO® Mastering Bamboo

Endless possibilities with MOSO® Bamboo Products:

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 60 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, Kempegowda International Airport, BMW, AkzoNobel, Texaco, Guggenheim Museum, SNCF, Rabobank, United Nations (FAO), and CitizenM Hotels. For an overview of our references and clients please visit our website: www.moso-bamboo.com/references



Headquarters:

Moso International B.V.

Adam Smithweg 2
1689 ZW Zwaag
The Netherlands
T +31 (0)229 265732
info@moso.eu

Spain, France, Portugal, North Africa,
Latin America and Middle East:

Moso Europe S.L.U.

C/ Pau Claris, 83 - Principal 2ª
08010 Barcelona
Spain
T +34 (0)93 574 9610
contact@moso.eu

Canada:

Moso West Canada

101-197 Forester St.
North Vancouver,
Canada
T +236 800 8426
design@moso-bamboo.ca

Gulf Cooperation Council
(GCC) Countries:

Moso MENA

P.O. Box: 410684
Dubai
United Arab Emirates
T +97 1483 24934
mosomena@moso-bamboo.com

www.moso-bamboo.com

North America:

Moso North America HQ

Lansdale PA
United States of America
T +1 855 343 8444
info@moso-bamboo.com

Sub-Saharan Africa:

Moso Africa Pty. Ltd.

7 Glosderry Road Kenilworth
7708 Cape Town
South Africa
T +27 2167 11214
contact@moso-bamboo.co.za

Italy:

Moso Italia S.R.L

Via Antonio Locatelli 86
20853 Biassono (MB)
Italy
T +39 (0)39 900 5440
mosoitalia@moso.eu

18

 Luxury Frontiers
 Sven Musica

moso®

Mastering
bamboo

EN-2024