



www.moso.eu/durable





MOSO® Bamboo Products: a sustainable choice!

To determine the eco-impact of a product, every phase of the life cycle should be taken into account. MOSO® Bamboo Products offer clear sustainability advantages in each phase and are even proven CO2 neutral over the full life cycle (see also right page)!

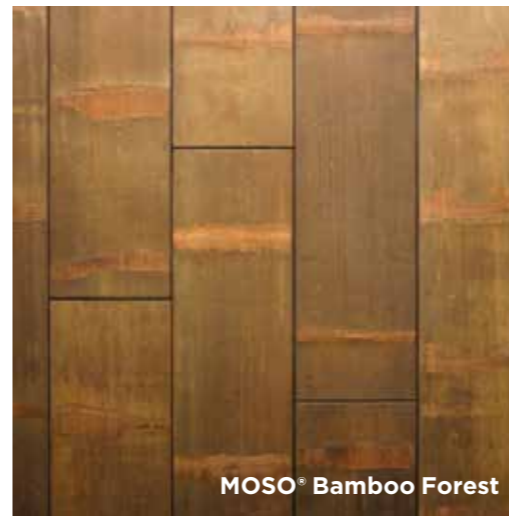
growth phase

- ✓ Made from the extremely rapidly renewable giant bamboo species "Moso", renowned for its CO2 absorbing and O2 producing capacity.
- ✓ Abundantly available in China (approx. 7 mio ha) and always sourced from sustainably managed forests and plantations.
- ✓ The Moso bamboo plant consists of multiple stems. As a result, several stems may be harvested each year without killing the mother plant.
- ✓ **Optional:** MOSO® Bamboo FSC®-certified (most important ecolabel for sustainable wood sourcing).



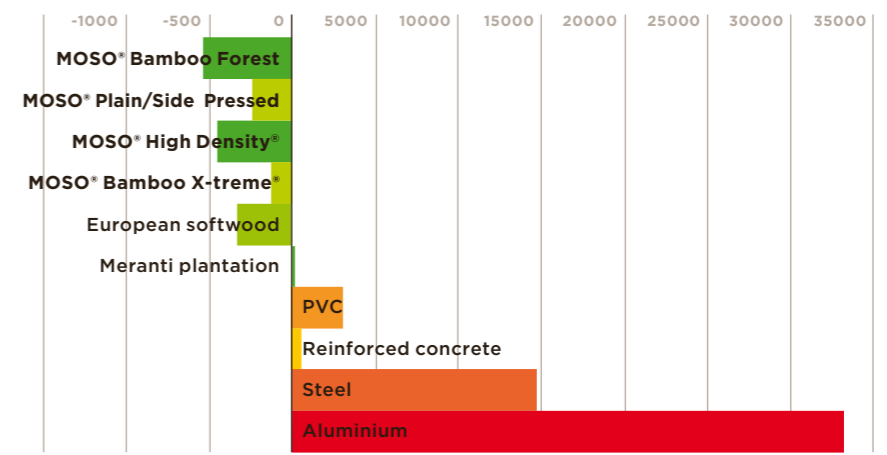
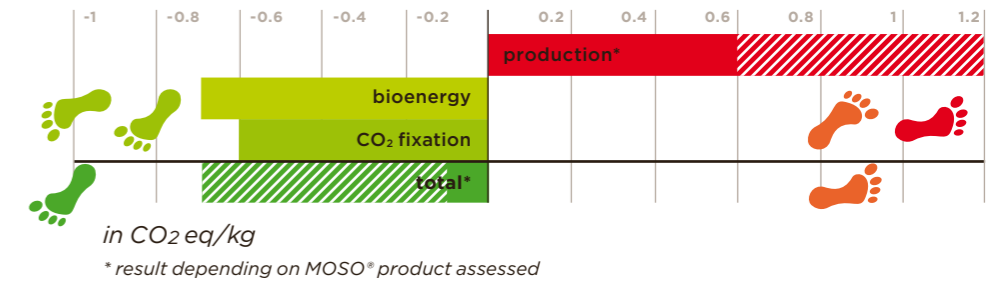
production phase

- ✓ The MOSO® Bamboo Products are made in production facilities that are ISO 9001 and ISO 14001 (important quality standards) certified.
- ✓ **Optional:** use of eco-friendly adhesive with no added formaldehyde, complying with the strictest emissions norm: E0 (EU requisite = E1).



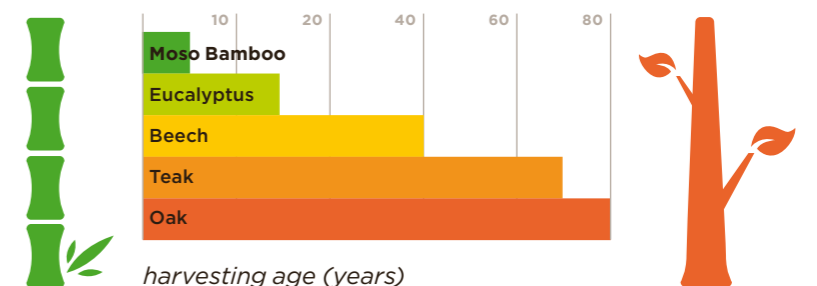
carbon footprint

MOSO® Bamboo Products: CO2 neutral or better over full life cycle
MOSO® has commissioned Delft University of Technology to conduct an official LCA and carbon footprint study. The report (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"). In this result the high growing speed of Moso bamboo (see graph below) 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.eu/epd).



unsurpassed growing speed

Moso 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 4-5 year old stems - compared to 80 years for tropical hardwood! - provides a steady annual income to farmers and stimulates the bamboo plant to reproduce even faster. Therefore, in contrast to tropical hardwood, there is no deforestation taking place for production of MOSO® Bamboo Products.



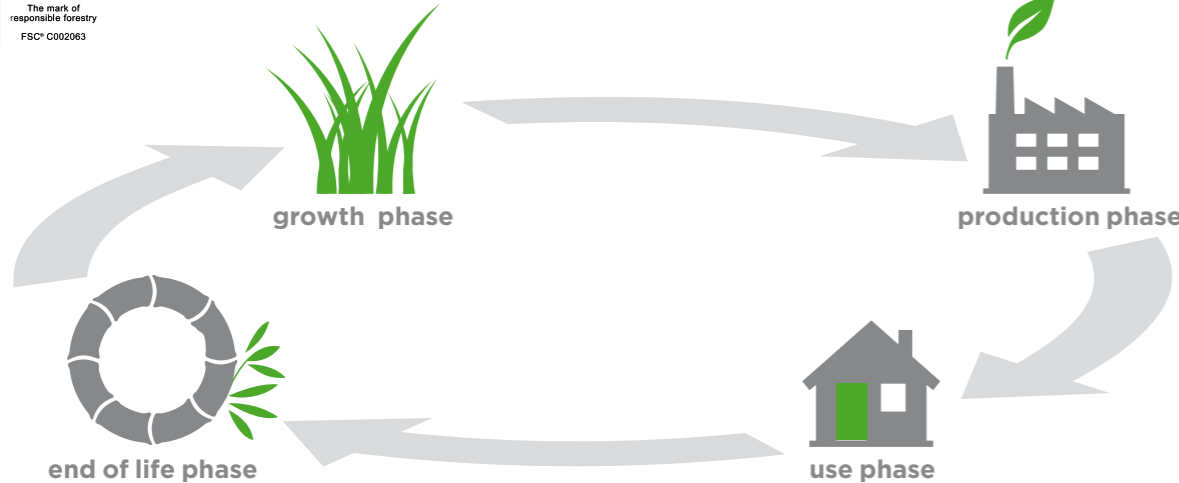
end of life phase

- ✓ As a non toxic, natural material, MOSO® Bamboo Products offer no restrictions in the end-of-life phase.
- ✓ If maintained well, MOSO® Bamboo Products may be reused in similar applications (upcycling). If this is not possible, MOSO® products may be safely used as input material for the chipboard industry (downcycling).
- ✓ If up- or downcycling is not possible, it is recommended to use the bamboo material as sustainable substitute for fossil fuels in a biomass energy plant for the production of green energy.



use phase

- ✓ Durable = Sustainable: because of the high hardness, density and stability, MOSO® Bamboo Products last very long (less replacement) even in tough circumstances. Proven Quality: all MOSO® Bamboo Flooring Products are CE marked and guaranteed up to 30 years.
- ✓ Healthy indoor climate: very low emissions of volatile organic compounds (VOCs); MOSO® floors have been rated A and A+ in France with respect to VOC emissions: the best classification possible!
- ✓ Extra credits for sustainable building eco-labels, such as BREEAM and LEED (see backpage for details).

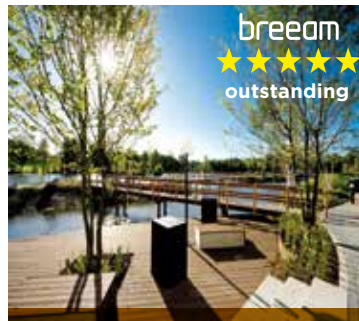




MOSO® Flooring
Tel-Aviv University, Israel
LEED Platinum



MOSO® Beams, Panels & Veneer
IDOM Headquarters Bilbao, Spain
LEED Gold



MOSO® Outdoor
Venco Campus, The Netherlands
BREEAM Outstanding



MOSO® Unlimited Solutions
Campus Palmas Altas, Spain
LEED Platinum

contribution MOSO® products to LEED & BREEAM

LEED version 4 (2013 -)	contribution	flooring	beams, panels & veneer	outdoor (bamboo x-treme®)
MR Credit 1 - Building life-cycle impact reduction	direct	yes (if solid)	yes	yes
MR Credit 2 - Building product disclosure and optimization - environmental product declarations	direct	yes (if solid)	yes	yes
MR Credit 3 - Building product disclosure and optimization - sourcing of raw materials	direct	yes (if requested with FSC®)	yes (if requested with FSC®)	yes (if requested with FSC®)
EQ Credit 2 - Low Emitting Materials	direct	yes	yes	
SS Credit 7: Heat Island Redustion	direct			yes
IN Credit 1 - Innovation	direct	yes (if used in innovative applications or if helps to meet twice the criteria limit)	yes (if used in innovative applications or if helps to meet twice the criteria limit)	yes (if used in innovative applications or if helps to meet twice the criteria limit)
EQ Credit 6 - Interior Lighting	indirect	yes (if natural colour)	yes (if natural colour)	
EQ Credit 9 - Acoustic performance	indirect		yes (optional)	
LEED version 2009	contribution	flooring	beams, panels & veneer	outdoor (bamboo x-treme®)
MR Credit 6 - Rapidly Renewable Materials	direct	yes	yes	yes
MR Credit 7 - Certified Wood	direct	yes (if requested with FSC®)	yes (if requested with FSC®)	yes (if requested with FSC®)
IEQ Credit 4.3 - Low Emitting Materials: Flooring Systems	direct	yes		
IEQ Credit 4.4 - Low Emitting Materials - Composite Wood and Agrifiber Products	direct		yes (if requested with E0 glue)	
ID Credit 1 - Innovation in Design	direct	yes (if helps to meet twice the criteria limit)	yes (if helps to meet twice the criteria limit)	yes (if helps to meet twice the criteria limit)
EQ Credit 8.1 - Daylight	indirect	yes (if natural colour)	yes (if natural colour)	
BREEAM International credit	contribution	flooring	beams, panels & veneer	outdoor (bamboo x-treme®)
HEA 2 - Indoor Air Quality	direct	yes	yes	yes (if used indoors)
MAT 1 - Life Cycle Impacts	direct	yes (if solid)	yes	yes
MAT 3 - Responsible Sourcing of Materials	direct	yes (if requested with FSC®)	yes (if requested with FSC®)	yes (if requested with FSC®)
MAT 5 - Designing for Robustness	direct	yes (if high Density®)	yes (if high Density®)	yes
Innovation	direct	yes (if used in an innovative application)	yes (if used in an innovative application)	yes (if used in an innovative application)
MAN 5 - Life cycle cost and service life planning	indirect	yes (if high Density®)	yes (if high Density®)	yes
HEA 1 - Visual comfort	indirect	yes (if natural colour)	yes (if natural colour)	
HEA 5 - Acoustic performance	indirect		yes (optional)	



breeam

MOSO®: World Leading in Bamboo

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 and Hangzhou (China). MOSO® works with several partner companies and leading distributors worldwide to guarantee the availability of MOSO® products in each region.

Besides our exceptionally broad assortment in building solutions for indoors & outdoors, we are able to go even further. For industrial clients we develop unique customized solutions such as the 200.000m² ceiling panels at Madrid International airport.

Furthermore, MOSO® bamboo products have been installed in leading green building projects worldwide such as Tel-Aviv University (The Porter School of Environmental Studies - LEED Platinum) and IDOM head office in Bilbao (LEED Gold), the Venco Campus in Eersel (BREEAM Outstanding) and in the head office of NIBE, ranked as the greenest building in the Netherlands and Belgium following the Green building software tool GreenCalc (GreenCalc score of 1029).

The proof is the impressive line of references and clients such as Madrid Airport, BMW, AkzoNobel, Texaco, Guggenheim Museum, Rabobank, United Nations (FAO), Mercedes and CitizenM Hotels. For an overview of our references and clients please refer to our website: www.moso.eu/references