

# MOSO<sup>®</sup> Bamboo N-finity indoor products

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**KNEKASH PRO**

ביצוע פרויקטים אדריכליים



📷 Mathias Kögel





bamboo:  
the fastest  
growing plant  
in the world



patented  
finger-jointing  
method

# MOSO®

## Bamboo N-finity

Bamboo is very **sustainable, ecological** and the **fastest growing** raw material on earth. In addition, this bamboo construction “timber” has very good **mechanical properties**, making it ideal for **structural applications**. Due to its good technical characteristics it is possible to use thinner beams compared to the traditionally used wood species. Examples of applications are: **curtain walls, verandas, and door- and window frames**. MOSO® Bamboo N-finity construction beams can therefore replace aluminum, hardwood and glulam. Bamboo N-finity:

- Has very good insulating properties in contrast to e.g. aluminum;
- Has a much better ecological footprint compared to aluminum;
- Is less sensitive to moisture than wood;
- Is very hard and can be delivered with narrow tolerances, therefore little loss in production.



„Bamboo is for us a sustainable material, which even in direct comparison to wood has the better properties in terms of sustainability, CO<sub>2</sub> bond, strength and resistance. Bamboo in the laminated version is ideally suited for construction components in curtain walls or element facades. Bamboo facades create a warm, pleasant atmosphere, especially in office areas. In combination with bamboo panels and veneers or even parquet, there are numerous design possibilities in interior design to tie in with this atmosphere.”

Martin Atzinger - archibrand®  
Munich, Germany

► [www.archibrand.com](http://www.archibrand.com)

# certificatied with **DIBt** General Building Inspectorate Approval

MOSO® Bamboo N-finity Beams for structural and non-structural elements in timber construction are certified with DIBT General Building Inspectorate Approval No. Z-9.1-895. MOSO® Bamboo N-finity is the first bamboo material that is certified with an Approval for structural applications by the German Institute for Construction technique. With the technical characteristics mentioned in the Approval, the Bamboo N-finity Beams can be installed as structural or non-structural elements in buildings that are described in the document:

- Areas where the use of hardwood is permitted in accordance with the standard DIN EN 1995-1-11 in conjunction with the German National Annex DIN EN 1995-1-1/NA2;
- Without chemical wood preservatives or fire protection agents but including joining materials commonly used in timber construction;
- Areas which are assigned to service class GK 0 in accordance with DIN 68800-13, but not unheated attics in accordance with the last indent of DIN 68800-1, Section 5.2.1;
- Only for supporting structures which are statically or quasi-statically loaded (see DIN EN 19904 and DIN EN 1991-1-15 in conjunction with DIN EN 1991-1-1/NA6).

DIBt General Building  
Inspectorate Approval

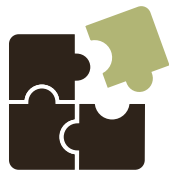


# advantages of MOSO® Bamboo N-finity indoor construction timber



## high stability

Due to the composition of individual strips and multiple pressed layers, MOSO® Bamboo N-finity Beams will shrink and swell less than solid wood species, providing more stability. Considerably higher stability than all other woods, making it possible to work very thin - with smaller dimensions than before.



## multiple solutions

MOSO® Bamboo N-finity Beams offer multiple solutions for glass facade systems, conservatories, roof trusses and door and window frames, and many more indoor applications.



## hard & durable

Brinell hardness  $\pm 4 \text{ kg/mm}^2$ . The mechanical properties exceed those of the commonly used hardwoods.



## CO<sub>2</sub> neutral

Official LCA and carbon footprint studies (EN 15804) confirm that MOSO® Bamboo N-finity Beams are CO<sub>2</sub> neutral during the product lifespan\*. The use of bamboo contributes to a higher score in LEED-, BREEAM and Green Star certified projects.



## beautiful appearance

Creates a beautiful, natural look. Final appearance can be determined with many different finishes.



## renewable raw material

Made from Moso bamboo; one of the fastest growing plant on earth. Ready for harvest after 4-5 years (compared to up to 100 years for hardwood species) - no deforestation. Consisting of approx. 97% natural bamboo.

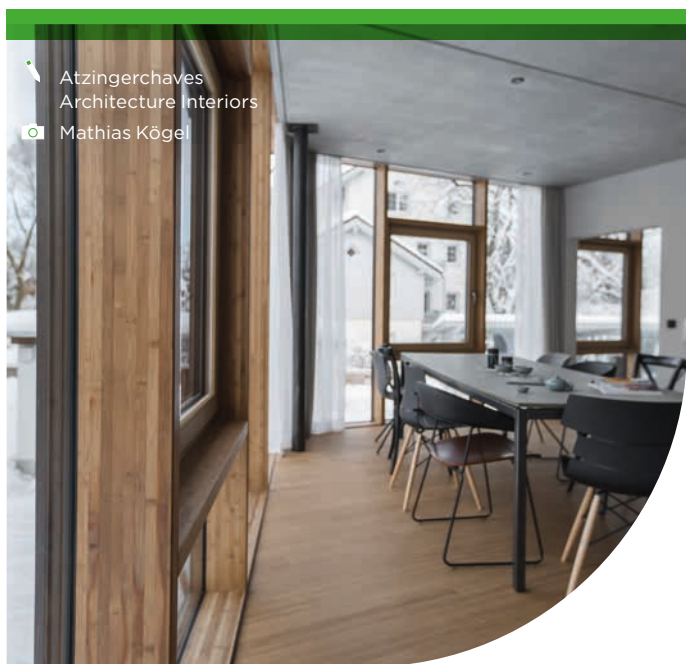
\*) This includes the CO<sub>2</sub> (biogenic carbon - EN 16449) stored in the product.





Vigüier  
Daniel Osso Photographe

**Head Office Bridge Pont d'Issy Orange** (20 m<sup>3</sup>) Issy-les-Moulineaux, France



Atzingerchaves  
Architecture Interiors  
Mathias Kögel

**Private House in Immenstadt i. Allgäu**  
Immenstadt i. Allgäu, Germany

**Schindler Headquarter**  
(24,839 m<sup>2</sup>) Vélizy-Villacoublay, France



Architecture Studio  
Antoine Duhamel

# MOSO® Bamboo N-finity Indoor Beams

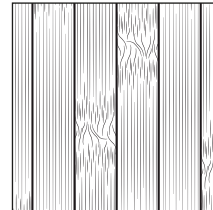


MOSO® Bamboo N-finity Indoor Beams are solid bamboo construction beams developed for structural applications\*. The bamboo strips are connected with a special patented hook connection on strip level. Bamboo N-finity has been tested for its mechanical properties (bending, tension, compression, shear) and can be used as a structural beam. The standard range consists of 4 different cross-sections with a length of 5800 mm. The beams are available on request in maximum dimensions of 12.000 x 200 x 120 mm. This product is suitable for interior use in curtain wall systems as well as for window- and door frames.

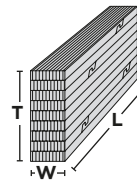
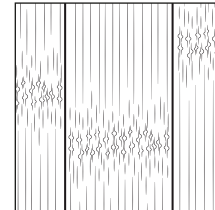
BL-IL957-580



Side Pressed



Plain Pressed



Product Code	Edges	Dimensions L x W x T
BL-IL955-580	Square	5800 x 51 x 161 mm
BL-IL957-580	Square	5800 x 61 x 161 mm
BL-IL456-580	Square	5800 x 86 x 72 mm
BL-IL556-580	Square	5800 x 86 x 82 mm

## please note

- Attention: The surface of this product is fine-sawn (unfinished) and can be further processed at any time if a fine, smooth surface is required.
- Other dimensions can be produced custom made: maximum beam size 12,000 x 200 x 120 mm or 12,000 x 120 x 200 mm.

\* The structural performance depends on the specific design of the application. In Europe structural use in buildings always has to be certified by an independent, accredited test institute.

## technical characteristics and certifications

- Density:  $\pm 700 \text{ kg/m}^3$
- Shrink/Swell: 0.14% per 1% change in Moisture Content
- Moisture content: 10% at 20°C and 65% relative humidity, 8% at 20°C and 50% relative humidity
- Brinell hardness:  $\pm 4 \text{ kg/mm}^2$  (average value - EN 1534)
- Reaction to fire: Class D-s2-d0 (EN 13501-1)
- Emission class: Class E1 ( $< 0.124 \text{ mg/m}^3$ ) (EN 717-1)
- Modulus of Elasticity:  $\pm 9721 \text{ N/mm}^2$  (SP),  $\pm 8866 \text{ N/mm}^2$  (PP) (EN 408)
- Bending strength:  $\pm 56.7 \text{ N/mm}^2$  (SP),  $\pm 50.8 \text{ N/mm}^2$  (PP) (EN 408)
- DIBt (Deutsches Institut für Bautechnik) certification: Z-9.1-895
- Use Class: Class 1 (EN 335)
- Glue: D4 Water resistant
- CO<sub>2</sub> neutral: LCA report TU Delft (ISO 14040/44) ([www.moso-bamboo.com/lca](http://www.moso-bamboo.com/lca))
- Environmental Product Declaration - EPD (EN 15804) available at [www.moso-bamboo.com/epd](http://www.moso-bamboo.com/epd)
- FSC®: FSC® certified products available on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®) v2009: MR 6, MR 7 (FSC®)
- Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®)



The mark of responsible forestry  
FSC® C002063



breeam



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More information about  
**MOSO® Bamboo N-finity Indoor**  
can be found at:

[www.moso-bamboo.com/n-finity-indoor](http://www.moso-bamboo.com/n-finity-indoor)



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Mastering  
bamboo