MOSO® by Grad®

Bamboo Outdoor Products installed in one click

WARRANTY 25 YEARS

TIM Exclusive Gardens
Olivr

MOSO® BAMBOO X-TREME®
certified
100%
proven
durable - stable - sustainable

Bamboo: the fastest growing plant in the world

Holger Martin

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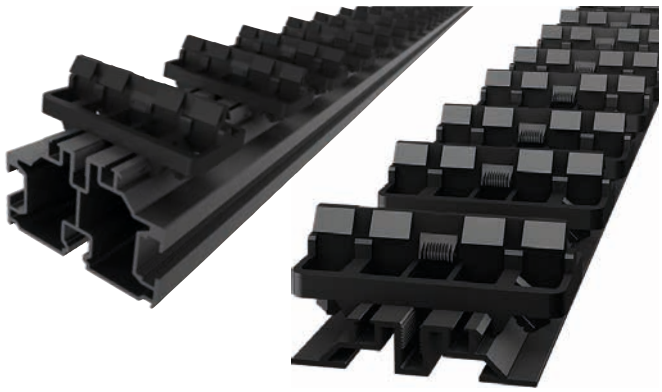
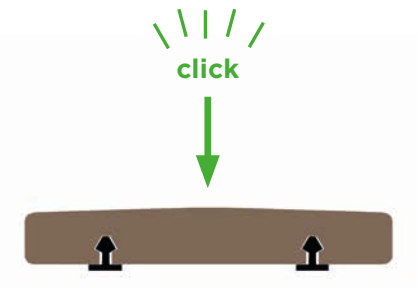
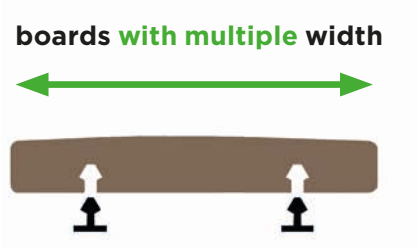
MOSO® Bamboo X-treme® & N-durance® Grad® installation system

With Bamboo X-treme® and Bamboo N-durance®, MOSO® has developed **ecological** and **durable** decking and cladding products made of one of the fastest growing resources on earth. MOSO® uses unique processes that combine thermal modification and compression of bamboo to enhance **hardness**, **dimensional stability**, **fire resistance**, and **durability** to a level **superior** to that of the strongest wood species.



How it works: **Bamboo X-treme®** and **Bamboo N-durance®** boards are snapped onto the **Grad® Clips** that fit into the **grooves at the backside** of the boards. Grad® aluminium rails with pre-fixed clips, and multiple accessories to finish the deck and cladding, allow for a **fast**, **easy** and **reliable installation**, and ensure the perfect alignment of the Bamboo X-treme® or Bamboo N-durance® board to create a deck or façade that lasts.





Grad® Keys for easy to remove decking/cladding

▶ www.moso-bamboo.com/grad

Discover the **benefits** of **MOSO® Bamboo** by **Grad®**

CO_2 neutral

- Official LCA and carbon footprint studies (EN 15804) confirm that MOSO® Bamboo X-treme® is CO_2 neutral during the product lifespan*.
- No use of fungicide in the production of Bamboo X-treme®.

*) *This includes the CO_2 (biogenic carbon - EN 16449) stored in the product.*

high stability

- Unique production techniques render the boards far more stable compared to traditional tropical hardwoods and limits its tendency to torsion.
- Aluminium is not subject to corrosion; its properties are not altered over time.
- 119 & 155 mm - wide boards with curved surface to allow for water drainage in decking without a slope.
- Gaps of 4-5 mm are respected between all boards to ensure continuous ventilation.

fire resistant

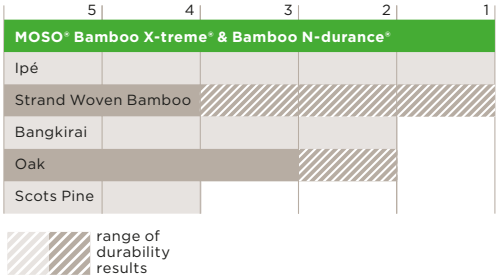
- Meets fire resistance Class Bfl-s1 as per EN 13501-1 without the addition of fire retardant. As a result, MOSO® Bamboo Decking can be easily applied in public projects without additional protective measures.
- Bamboo X-treme® meets Class A flame spread index as per ASTM E84.
- The Closed profile meets the fire resistance Class B-s1-d0 (EN 13501-1) for the complete cladding system with the Grad® Flat Rails.

hard & durable

- Biological durability Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test / Class 1 (EN 350 / CEN/TS 15083-1).
- Use Class 4 in accordance with EN 335.
- Effectiveness against blue stain Class 0 (EN 152).
- Exceptionally hard: Brinell ±9.5 kg/mm² (harder than any tropical hardwood available).

MOSO® Bamboo X-treme® and N-durance®

durability class according to EN 350 (CEN/TS 15083-2 / CEN/TS 15083-1)



MOSO® BAMBOO X-TREME®
certified 100% proven
durable - stable - sustainable

certified

durable — Class 1 (CEN/TS 15083-2) EN350 — Class 4 EN335

fire resistant — Bfl-s1

sustainable — CO_2 NEUTRAL

proven

Since 2008 over **6 million m² Bamboo Outdoor products** installed, in more than **60 countries**.

WARRANTY 25 YEARS

maintenance-free

- Bamboo X-treme® Cladding does not require periodic maintenance and offers the choice between natural greying or retaining the brown colour with an exterior finish.
- Bamboo X-treme® Decking and Bamboo N-durance® products require periodic cleaning or maintenance to retain the brown/caramel and beautiful look.

easy to install/remove

- Easy set-up thanks to the combination of aluminium rails, clips, and pedestals (for decking).
- The aluminium rails are delivered already equipped with the Grad® Clips spaced at the right distances for first time perfect board alignment and fixed gaps between boards all around.
- The Grad® 3D designing software guides all your decking project creations.
- Boards can be removed and put back effortlessly into place, and the subdeck can be accessed at anytime.

economical

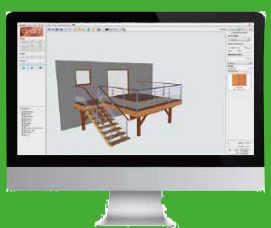
- 20% faster compare to installation with standard clip.
- Lengths of boards and aluminium rails optimised to minimise transportation costs and allow for easy handling.
- Tried and tested system offering a 20-year warranty.

Grad® Clips & Rails

- Extreme heat and cold resistant (-40°C to 70°C).
- Pull-out resistance of 240 kg per board (fixed by 2 fasteners).
- Aluminium rails offer extreme stability and durability.
- Up to 90% of the aluminium used in the Grad® Rails comes from recycable sources.

Grad® installation system: reliable, fast and accurate

quote on request



Lépine gold medal - Paris + world of the inventors Geneva - 2008

proven

Since 2006, over **1.5 million m²** of **Grad® system** has been **installed**, 100% satisfaction everytime.

20

years of warranty on the structure by Grad®

Spee Architects
Ossip-van-Duivenbode

Restauro Architecten Peter van Velzen
Awood

DAVL Studio

MOSO® Bamboo X-treme® Varibo Outdoor Cladding
for Grad® installation system

MOSO® Bamboo X-treme® Grad® Cladding are a solid boards in various widths, for exterior applications made from bamboo strips that have been compressed and thermally modified at 200°C. This unique Thermo-Density® process provides Bamboo X-treme® with the highest durability class possible in the appropriate EU norms, increases the stability and density, and consequently the hardness. MOSO® Bamboo X-treme® Grad® Cladding is designed for installation on the Grad® demountable and hidden installation system. Contrary to wood products, this material can achieve fire resistance without impregnation with expensive and eco-damaging fire retardants. The Closed profile achieves the fire resistance Class B-s1-d0[1)] (EN 13501-1) with the Grad® installation system. Like any tropical hardwood species, when exposed to outdoor conditions, Bamboo X-treme® will turn grey over time creating a very natural look.

Grad® profile 45 mm **Grad® profile 64 mm** **Grad® profile 119 mm** **Grad® profile 136 mm** Grad® Varibo End-matched

Product Code	Shape	Finish	Surface	End-matched	Length edges	End edges	Effective width (mm)*	Dimensions (mm)
BO-DTHT1180-BG	Grad®	Unfinished	Flat	No	R3	2mm x 45°	45	1850x45x20
BO-DTHT1190-BG	Grad®	Unfinished	Flat	No	R3	2mm x 45°	64	1850x64x20
BO-DTHT220-BG	Grad®	Unfinished	Flat	No	R3	2mm x 45°	119	1850x119x20
BO-DTHT540-1-BG	Grad®	Unfinished	Flat	Yes	R1	2mm x 45°	136	1850x136x20

*) Effective width without gap between the boards, distance after installation on Grad® system 6 mm (except for Closed profile).

installation

- Installation instructions are available from MOSO®:
  ▶www.moso-bamboo.com/cladding/grad
- MOSO guarantees the bamboo material and the mounting materials (fastener/screw) it supplies but does not guarantee the connection with other materials (such as sub frame joist/battens). It is the responsibility of the installer to make sure the used installation method matches such materials during the full lifetime of the product.
- Store in a cool and dry place away from direct sunlight, and protected from weather influences, dirt and dust.
- Installation instructions for the Grad® installation system are available from Grad®:
  ▶www.gradconcept.com

Flat Rail

technical characteristics and certifications

- Density: ± 1150 kg/m³
- Dimensional stability: length: + 0.1 %; width: + 0.9% (24 hours in water 20°C)
- Resistance to Indentation - Brinell Hardness: ± 9.5 kg/mm² (average value - EN 1534)
- Reaction to fire: Class B-s1-d0 (EN 13501-1) [1)]
- Flame spread index: Class A (ASTM E84)
- Thermal emittance: 0.81 (ASTM C1371) [2)]
- Solar Reflectance (SR): 0.32 (ASTM C1549) [2)]
- Solar Reflectance Index (SRI): Low 27, Medium 30, High 33 (ASTM E1980) [2)]
- Modulus of Elasticity: 13565 N/mm² (mean value - EN 408)
- Bending strength: 54.4 N/mm² (characteristic value - EN 408)
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test / Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against Blue Stain: Class 0 (EN 152)
- Use Class: Class 4 (EN 335)
- CO_2 neutral: LCA report TU Delft (ISO 14040/44) (www.moso-bamboo.com/lca)
- Environmental Product Declaration - EPD (EN 15804) (www.moso-bamboo.com/epd)
- FSC®: Products available with FSC® certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®), SS 7
  v2009: MR 6, MR 7 (FSC®)
- Contribution BREEAM: MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 25 years

[1)] Tested on 18 mm thickness, without gaps between boards, with ventilation space behind boards.
[2)] Tested on 3 years weathered MOSO® Bamboo X-treme®.

Class A · B-s1-d0 · E1 HCHO · CO_2 NEUTRAL · 25 YEARS WARRANTY · Class 1 (CEN/TS 15083-2) EN350 · Class 4 EN335 · EPD EN15804 · FSC www.fsc.org · The mark of responsible forestry FSC® C002063 · LEED · breeam

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TIM Exclusive Gardens
Olivr

Frédéric GODARD - Grad®

Grad®

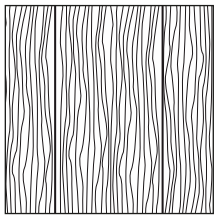
MOSO® Bamboo X-treme® Outdoor Decking
for Grad® installation system

MOSO® Bamboo X-treme® is a solid, Thermo-Density® decking board, made from compressed bamboo strips. A special, unique heat-treatment process at 200°C provides Bamboo X-treme® with the highest durability class possible in the appropriate EU norms and the compression increases the hardness and stability. The boards are precisely profiled to be installed on the Grad® system. Like any untreated tropical hardwood species, when exposed to outdoor conditions, Bamboo X-treme® will turn grey over time creating a very natural look. MOSO® Bamboo X-treme® Decking achieves fire resistance Class Bfl-s1 (EN 13501-1).

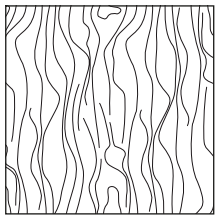
BO-DTHT191-C-BG

BO-DTHT221-C-BG

Smooth



Thermo-Density®



Boards Oiled Woca: Ends of the boards are protected with Sikkens Kodrin WV 456 sealer.

Oiled Woca	Unfinished	Surface	Grooved	End-matched	Length Edges	End edges	Dimensions (mm)
BO-DTHT191-C-BG	BO-DTHT190-C-BG	Curved	Grad® system	No	R3	2mm x 45°	1850x155x21
BO-DTHT221-C-BG	BO-DTHT220-C-BG	Curved	Grad® system	No	R3	2mm x 45°	1850x119x21

installation summary

(full version available on www.moso-bamboo.com/x-treme)

- Install a suitable, fixed, stable and durable sub frame and follow Grad's installation instructions:
  ▶ **gradconcept.com**
- Ensure good ventilation of the decking by keeping at least 20 mm gap from walls and objects and avoid closing the decking at the sides. The gap between the boards must be open to ensure unrestricted ventilation.
- When the surface/soil underneath the decking is not fast drying, there should be at least 100 mm distance between the decking and the surface underneath.
- Thanks to the curved surface installing with a slope is not required.
- For further info: please see the general Bamboo X-treme® installation/maintenance instructions:
  ▶ **moso-bamboo.com/x-treme/decking**
- After installation: make sure proper cleaning & maintenance is done.
- When not applying outdoor oil regularly, the deck will acquire a grey colour tone and the typical bamboo wood grain structure will become less visible.
- Bamboo X-treme® is available pre-oiled or unfinished. In order to maintain the rich brown colour an exterior penetrating oil for hardwoods is recommended to be applied 3 to 4 months after installation. We advise to apply the initial coat 3-4 months after installation.
- Store in a cool and dry place away from direct sunlight, and protected from weather influences, dirt and dust.

technical characteristics and certifications

- Density: ± 1150 kg/m³
- Dimensional stability: length: + 0.1 %; width + 0.9% (24 hours in water 20°C)
- Resistance to Indentation - Brinell Hardness: ± 9.5 kg/mm² (average value -EN 1534)
- Reaction to fire: Class Bfl-s1 (EN 13501-1)
- Flame spread index: Class A (ASTM E84)
- Slip resistance: USRV 55 (Dry), USRV 29 (Wet) (CEN/TS 15676) / R 10 (CEN/TS 16165 Annex B - DIN 51130) (Dry)
- Thermal emittance: 0.81 (ASTM C1371) [2)]
- Solar Reflectance (SR): 0.32 (ASTM C1549) [2)]
- Solar Reflectance Index (SRI): Low 27, Medium 30, High 33 (ASTM E1980) [1)]
- Modulus of Elasticity: 13565 N/mm² (mean value - EN 408)
- Breaking strength: 54.4 N/mm² (characteristic value - EN 408)
- Biological durability: Class 1 (EN 350 / CEN/TS 15083-2), simulated graveyard test / Class 1 (EN 350 / CEN/TS 15083-1)
- Effectiveness against Blue Stain: Class 0 (EN 152)
- Use Class: Class 4 (EN 335)
- CO_2 neutral: LCA report TU Delft (ISO 14040/44) (www.moso-bamboo.com/lca)
- Environmental Product Declaration - EPD (EN 15804) (www.moso-bamboo.com/epd)
- FSC®: Products available with FSC® certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®), EQ 2, SS 7
  v2009: MR 6, MR 7 (FSC®), IEQ 4.3, IEQ 4.4
- Contribution BREEAM: MAT 1, MAT 3 (FSC®), MAT 5 (HD)
- Guarantee: 25 years

[1)] Tested on 3 years weathered MOSO® Bamboo X-treme®.

Class A | Bfl-s1 | E1 HCHO | CO_2 NEUTRAL

25 YEARS WARRANTY | Class 1 (CEN/TS 15083-2) EN350 | Class 4 EN335 | EPD EN15804

FSC www.fsc.org

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breeam

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WARRANTY
25
YEARS

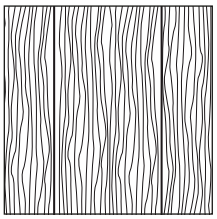
MOSO® Bamboo N-durance® Outdoor Decking
for Grad® installation system

MOSO® Bamboo N-durance® Decking is a solid, Outdoor-Density® board, made from compressed bamboo strips. Bamboo N-durance® has a warm caramel colour, resulting from a steam-pressure treatment on the bamboo material. A special crushing and compression technique increases the hardness and stability and provides Bamboo N-durance® with the highest durability class possible in the appropriate EU norms. The boards are precisely profiled to be installed on the Grad® system. When exposed to outdoor conditions, the caramel colour of Bamboo N-durance® will naturally fade. MOSO® Bamboo N-durance® Decking achieves fire resistance Class Bfl-s1 (EN 13501-1).

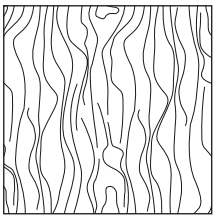
BO-DTC191-C-BG-01

BO-DTHT221-C-BG-01

Smooth



Outdoor-Density®



P: Superficial preservative against surface fungi, **Woca:** Woca Exterior Wood Oil.
Ends of the boards are protected with Sikkens Kodrin WV 456 sealer.

Product Code	Surface	Finish	Grooved	End-matched	Length Edges	End edges	Dimensions (mm)
BO-DTC191-C-BG	Curved	P + Woca	Grad® system	No	R3	2mm x 45°	1850x155x21
BO-DTC221-C-BG	Curved	P + Woca	Grad® system	No	R3	2mm x 45°	1850x119x21

installation summary

(full version available on www.moso-bamboo.com/n-durance)

- Install a suitable, fixed, stable and durable sub frame and follow Grad's installation instructions:
  ▶ **gradconcept.com**
- Ensure good ventilation of the decking by keeping at least 20 mm gap from walls and objects and avoid closing the decking at the sides. The gap between the boards must be open to ensure unrestricted ventilation.
- When the surface / soil underneath the decking is not fast drying, there should be at least 100 mm distance between the decking and the surface underneath.
- Thanks to the curved surface installing with a slope is not required.
- For further info: please see the general Bamboo N-durance® installation/ maintenance instructions:
  ▶ **www.moso-bamboo.com/n-durance**
- After installation: make sure proper cleaning is done.
- In order to maintain the rich caramel colour it is recommended to reapply Woca Exterior Wood Oil 3 to 4 months after installation.
- Yearly maintenance with Woca Exterior Wood Oil is required to maintain the anti-surface fungi resistance, to retain the caramel colour and ensure the luxurious appearance.
- Store in a cool and dry place away from direct sunlight, and protected from weather influences, dirt and dust.

technical characteristics and certifications

- Density: ± 1200 kg/m³
- Resistance to Indentation - Brinell Hardness: ± 9.5 kg/mm² (average value - EN 1534)
- Reaction to fire: Class Bfl-s1 (EN 13501-1)
- Slip resistance: R 10 (CEN/TS 16165 Annex B - DIN 51130)
- Modulus of Elasticity: 12610 N/mm² (mean value - EN 408)
- Bending strength: 95.5 N/mm² (characteristic value - EN 408)
- Biological durability: Class 1 according to EN 350 / CEN/TS 15083-2, simulated graveyard test / Class 1 according to EN 350 / EN 113-2 (CEN/TS 15083-1)
- Superficial preservatives and finish: comply with European biocide product regulation (BPR) and are not listed on the restrictions list of REACH Annex XVII/ candidate list.
- Effectiveness against surface fungi: Class 0, Strong fungi static (EN ISO 846), treatment only superficial.
- Use Class: Class 4 (EN 335)
- Environmental Product Declaration - EPD (EN 15804) (www.moso-bamboo.com/epd)
- FSC®: Products available with FSC® certification on request.
- Contribution LEED BD+C - v4: MR 1, MR 2, MR 3 (FSC®), EQ 2, SS 7
  v2009: MR 6, IEQ 4.3, IEQ 4.4
- Contribution BREEAM: MAT 1, MAT 3 (FSC®), MAT 5
- Guarantee: 25 years

Bfl-s1 · E1 HCHO · EPD EN15804 · 25 YEARS WARRANTY · Class 1 (CEN/TS 15083-2) EN350 · Class 4 EN335 · FSC www.fsc.org · The mark of responsible forestry FSC® C002063 · LEED · breeam

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MOSO® by Grad®
installation systems

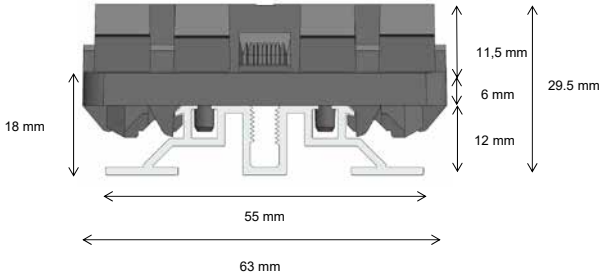
Grad® Rails including fasteners for MOSO® Bamboo Cladding

With these rails and fasteners, MOSO® Bamboo Cladding can be easily installed, creating 5-6 mm gaps between the sides of the boards for ventilation, except for the Cladding Closed profile. Each full board should be installed on 4 rails (616,7 mm span between rails). Grad® Rails are not available from MOSO® and can be ordered from Grad® (distributors).

Product Code	Description	Quantity of board per rail	Dimensions (mm)	Consumption	Board width (mm)	Distance boards (mm)	Distance between boards (mm)	Compatible with MOSO® boards
GRAD-FLATRAIL-1799	Flat Rail 51 - 55/12	39	1989x63x30	0,81 rail/m²	45	51	6	BO-DTHT1180-BG
GRAD-FLATRAIL-1792	Flat Rail 70 - 55/12	28	1960x63x30	0,83 rail/m²	64	70	6	BO-DTHT1190-BG
GRAD-FLATRAIL-1185	Flat Rail 124 - 55/12	16	1984x63x30	0,81 rail/m²	119 or 136	124	5 (profil 119), 0 (profil 136)	BO-DTHT220-BG or BO-DTHT540-1-BG (Closed)
GRAD-FLATRAIL-1903-VARIBO	Flat Rail Varibo - 55/12	24	1968x63x30	0,82 rail/m²	45, 64 and 119	variable	6	BO-DTHT1180-BG and BO-DTHT1190-BG and BO-DTHT220-BG

Grad® Flat Rail

Side view of the Grad® Flat Rail



Grad® Rails including fasteners for MOSO® Bamboo Decking

With these rails and fasteners, MOSO® Bamboo Decking can be easily installed, creating 4 mm gaps between the sides of the boards for ventilation. Each full board should be installed on 5 rails (462.5 mm span between rails). Grad® Rails are not available from MOSO® and can be ordered from Grad® (distributors).

Product Code	Description	Dimensions (mm)	Effective height (mm)	Consumption	Distance between pedestals* (cm)	Compatible with MOSO® boards
GRAD1802-PR39-155	PR39 155 - Perfect Rail (for 12 boards)	1920x63x57	45	1,2 rail/m²	65	boards 155 mm width
GRAD1803-PR56-155	PR56 155 - Perfect Rail (for 12 boards)	1920x63x74	62	1,2 rail/m²	100	boards 155 mm width
GRAD1808-TR24-155	TR 24 155 - Top Rail (for 12 boards)	1920x63x70	35 to 90	1,2 rail/m²	32	boards 155 mm width
GRAD-FLATRAIL-1800	Flat Rail 155 - 55/12	1920x63x30	18	1,2 rail/m²		boards 155 mm width
GRAD1194-PR39-119	PR39 119 - Perfect Rail (for 16 boards)	1984x63x39	45	1,2 rail/m²	65	boards 119 mm width
GRAD1197-PR56-119	PR56 119 - Perfect Rail (for 16 boards)	1984x63x56	62	1,2 rail/m²	100	boards 119 mm width
GRAD1189-TR24-119	TR 24 119 - Top Rail (for 16 boards)	1984x63x24	35 to 90	1,2 rail/m²	37	boards 119 mm width
GRAD-FLATRAIL-1885	Flat Rail 119 - 55/12	1984x63x30	18	1,2 rail/m²		boards 119 mm width

*) Distance between plots indicated for residential use. For non-residential use, please contact MOSO®.

PR39 Perfect Rail

PR56 Perfect Rail

TR 24 Top Rail

Grad® Flat Rail

When the surface / soil underneath the decking is not fast drying, there should be at least 100 mm distance between the decking and the surface underneath. See datasheet of decking for more information.

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MOSO® by Grad®
accessories

Grad® accessories

Depending on the installation, special Grad® accessories (only available from Grad®) are required to install the decking.

Product code	Description	Material	Quantity per box	Quantity per pallet
GRAD1181-TOP-LFT	TOP LIFT	PP - adjustable from 35 to 55 mm without extension.	1	960
GRAD1641-TOP-LFT-EX	UP+	PP - 45 mm height are added per pair of assembled extensions.	2	7680
GRAD1499-TOP	TOP+	PP - to stabilize the plot beyond 3 pairs of extensions.	80	1920
GRAD1489-TOP-LINK	TOP LINK L	POM - Rail connection piece.	20	4800
GRAD1483-CLIPGRAD	CLIP GRAD	POM + stainless steel - removable clip 6cm with lugs for alu rail, bag of 50.	50	16000
GRAD1487-CLIPGRADSE	CLIP GRAD SE	POM + stainless steel - fasteners without lugs for angled segments and screw M5/12, kit of 50.	50	16000
GRAD1503-BOW	BOW	Stainless steel - bracket kit 47/30 including bolts (for attachment of distributors and creation of trimmers), bag of 4.	4	8192
GRAD1505-ADJUST	ADJUST	Stainless steel - adjustable plate 120/30/1.5 mm to connect rails with variable angles including bolts, kit of 2.	2	7680
GRAD1504-ADJUST+	ADJUST+	POM + stainless steel - adjustable plate 120/30/1.5 mm to connect fascias with variable angles including unit clip, kit of 4.	4	5120
GRAD1784-KEY	KEYS M	High strength steel - pair of keys to remove 155 mm boards.	2	2160

Top Lift
GRAD1181-TOP-LFT

Up+
GRAD1641-TOP-LFT-EX

Top+
GRAD1499-TOP

Top Link L
GRAD1489-TOP-LINK

Grad® Clip
GRAD1483-CLIPGRAD

Grad® Clip SE
GRAD1487-CLIPGRADSE

Bow
GRAD1503-BOW

Adjust
GRAD1505-ADJUST

Adjust+
GRAD1504-ADJUST+

Keys M
GRAD1784-KEY

More information on Grad® Decking accessories available at:
▶ **www. gradconcept.com/**

MOSO® cleaning & maintenance accessories

Under the influence of wind, rain, sun and snow the decking will weather. MOSO® recommends to impregnate and maintain the pre-oiled decking with Woca Maintenance materials. Unfinished decking must be treated with Woca oil right after installation. The silicium carbid broom and machine disk are perfectly suited to clean and smooth the decking surface of Bamboo X-treme® and Bamboo N-durance® and to remove splinters due to the capability to sand the surface in addition to cleaning it.

Product Code	Item
SEALER-05	Sealer for ends of boards 250 ml
DISK-01	16” Silicon carbide disk
BROOM-01	Silicon carbide broom
CLEANER-WOCA-01	Woca Exterior Wood Cleaner 2.5 ltr
OIL-WOCA-011	Woca Exterior Wood Oil Teak 2.5 ltr
WOCA-APPLICATOR	Woca Applicator set for oil

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MOSO® Bamboo Outdoor Decking
cleaning & maintenance

maintenance Woca

The surface of decking is weathered under influence of wind, rain, frost and sunshine (UV). As a result, the surface turns grey, dirty and cracks/splinters will appear. WOCA Denmark has developed different outdoor cleaning and maintenance products. Woca Exterior Wood Cleaner loosens dirt and removes green growth from the surface, without damaging it.

maintenance of flat surface

Please be aware that on the flat surface, irregularities in the surface (e.g. cracks, splinters) may be more visible than on the grooved surface. With regular maintenance with Woca Exterior Wood Oil, this will be reduced.

maintenance schedule

Bamboo X-treme® Decking

- In order to maintain the rich brown colour it is recommended to reapply Woca Exterior Wood Oil 3 to 4 months after installation.
- When not applying outdoor oil regularly, the deck will acquire a grey colour tone and the typical bamboo wood grain structure will become less visible. Performing cleaning & maintenance will bring back the rich brown colour and smoothens the surface.

Bamboo N-durance® Decking

- In order to maintain the rich caramel colour it is recommended to reapply Woca Exterior Wood Oil 3 to 4 months after installation.
- Yearly maintenance with Woca Exterior Wood Oil is required to maintain the anti-surface fungi resistance, retain the caramel colour and ensure the luxurious appearance.

cleaning

- Soak MOSO® Bamboo Decking with plenty of water and leave it for 10 min. If possible use a garden hose. Do not use high-pressure cleaners.
- Mix Woca Exterior Wood Cleaner with water in the ratio 1:2 and apply it. If the decking is extremely dirty, exterior cleaner may be used undiluted. Clean the decking with a silicon carbide broom or machine disk (see accessories). Scrub the soaked material lengthwise following the bamboo grain until the material appears clean. If the decking has been installed flat side up, first scrub at an angle of 45 degrees before scrubbing in the length direction. When using a machine disk this is not necessary. Repeat the cleaning if necessary. Clean the surface carefully with water.
- Leave MOSO® Bamboo Decking to dry for approx. 24 hours. The material must be completely dry before oil treatment can be done.

application of oil

- Apply in dry weather only. Avoid direct sunlight and high temperatures.
- Stir the oil thoroughly before use. Apply an even thin coat of oil with an applicator (see accessories) or a brush (decking with non slip grit only with a brush).
- The oil is cream-coloured when it is wet.
- After a few minutes, the material has an oily appearance as the water is evaporating.
- Wipe off any excess oil with clean cotton cloths after no more than 5-10 minutes.
- Take particular care to remove excess oil from joints and grooves.
- Repeat the above process.
- When the material is dry, it may be polished with a polishing pad or polishing machine to ensure an extra hard-wearing surface. It takes 24 to 48 hours for the oil to harden thoroughly, depending on weather conditions and outdoor temperature. The material should not be exposed to water during this period.
- Pay attention to the ends of the joists and cut ends of the boards, which tend to absorb more water, and finish well to minimise water ingress. A sealer is available from MOSO®.

theoretical consumption

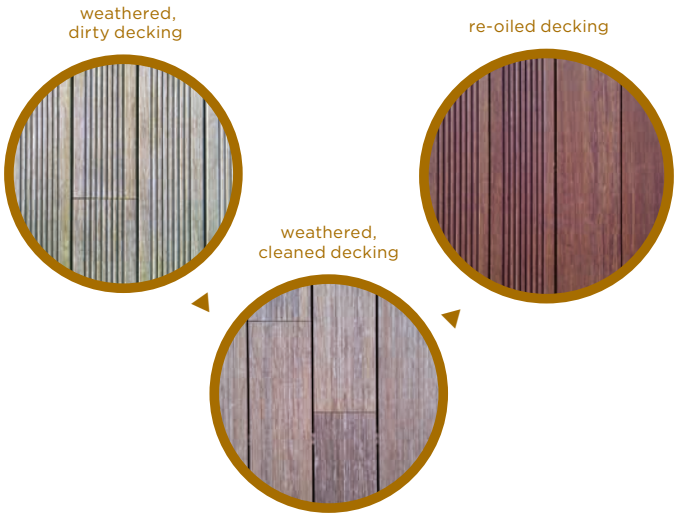
- Mix Woca Exterior Wood Cleaner with water in the ratio 1:2 and apply it. If the decking is extremely dirty, exterior cleaner may be used undiluted.
- Woca Exterior Wood Oil: 12 - 15 m^2/ litre.

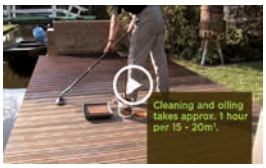
risk of self-ignition

Due to the risk of self-ignition it is important that oil-wetted cloths are soaked in water and are disposed in a tightly closed container after use. For more details, check the instructions of the finish supplier.

Gradual greying of MOSO® Bamboo X-treme® over time:

Surface of MOSO® Bamboo X-treme® with different cleaning and maintenance scenarios:





Check out the cleaning and maintenance movies at:
www.moso-bamboo.com/youtube/x-treme or
www.moso-bamboo.com/youtube/n-durance

MOSO® Bamboo N-durance® greying and re-oiled appearance highly depend on the location and chosen finish.

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MOSO® Bamboo Outdoor Decking
user information

appearance and colour X-treme®

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).

If a brown colour is preferred, maintenance should be done with Woca Exterior Wood Oil or a comparable waterbased oil/saturator with teak colour pigments.

Directly after installation, but even better after 3-4 months, 1 coat of oil (pre-oiled version) or 2 layers of oil (unfinished version) have to be applied. For further details see the installation instructions.

MOSO® Bamboo X-treme® shows similarity to other hardwoods in grain and structure. The characteristic bamboo nodes however can still be recognised and provide the product with a special and lively look.

Bamboo X-treme®
in wet condition

Bamboo X-treme®
in dry condition

appearance and colour N-durance®

MOSO® Bamboo N-durance® 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 warm caramel colour when installed, which turns into a lighter colour several weeks after installation. If a warm caramel colour is preferred, maintenance should be done with Woca Exterior Wood Oil or a similar waterbased finish. See for further details the installation and maintenance instructions:
▶ **www.moso-bamboo.com/n-durance**

Yearly maintenance with Woca Exterior Wood Oil will be required to maintain the warm caramel colour and the anti-surface fungi resistance. For decking oiled with Woca Exterior Wood Oil it is recommended to perform the first maintenance after 3-4 months. MOSO® Bamboo N-durance® shows similarity to other hardwoods in grain and structure. The characteristic bamboo nodes however can still be recognized and give the product a special and lively look.

Bamboo N-durance®
in wet condition

Bamboo N-durance®
in dry condition

swimming pool

If MOSO® Bamboo X-treme® and Bamboo N-durance® outdoor decking are to be used around swimming pool areas, the following has to be taken into account: MOSO® Bamboo Decking s a natural (wood like) product. As with any wooden product used outdoors, there is always a risk of formation of splinters, however splinters from MOSO® Bamboo are normally smaller than (tropical) hard wood splinters.

A regular application of a finish(more frequently necessary around swimming pools) is required to reduce the formation of splinters. Furthermore, regular maintenance with the silicon carbide broom or disk is required to effectively remove splinters and smooth the surface. The boards must be installed in such a way that the surface water cannot flow directly into the pool. Also bear in mind that treated swimming pool water contains salt and chlorine which can cause the boards around the pool to “weather” and become bleached faster than the boards in areas not exposed to the swimming pool water.

normal phenomena

Cracks on the surface and on the ends of the boards can occur due to the different drying characteristics of the surface and board ends. This does not affect the stability or durability of the board.

The surface side of the boards will become rougher over time and can form (small) splinters as a result of continuous water absorption and desorption due to dry and wet weather periods. Dimensional change or cupping of the boards can occur after installation. These phenomena are normal for most hardwood species and MOSO® Bamboo.

After installation, there might be some bleeding or leaching of colour from the bamboo material when it gets wet, e.g. when it rains. This possible bleeding is typical for wood and will disappear over time. The brownish liquid can easily be cleaned from the bamboo material, however controlled water drainage and prevention of splash water is required to prevent any discoloration of surrounding or underlying building components.

Holger Martin

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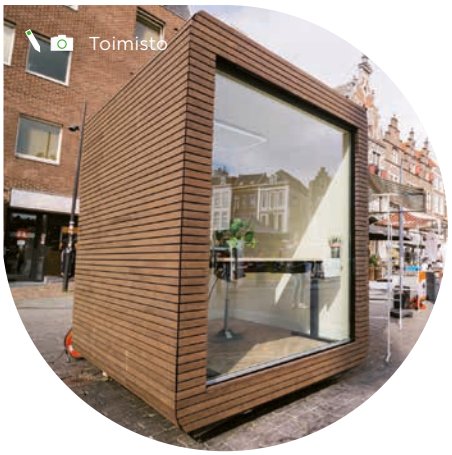
Toimisto garden office

Heumen, the Netherlands

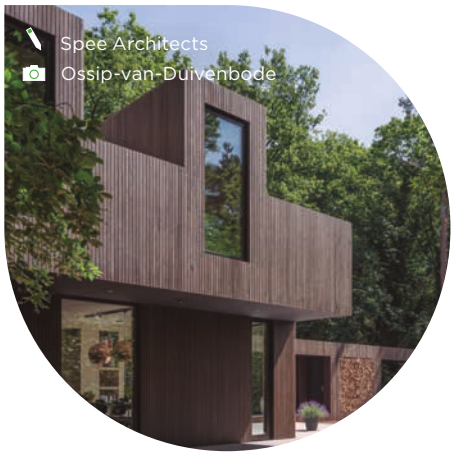


Booa Showroom

(150 m²) Liepvre, France

Speehuis

Oisterwijk, the Netherlands



See the ease and fast installation of MOSO® by Grad® on:
www.moso-bamboo.com/grad

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Mastering bamboo

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