



# MOSO® Bamboo Outdoor Decking

## Installation instructions

MOSO® Bamboo Outdoor Decking has similar properties to outdoor-rated exotic hardwoods like Ipe. Installation methods, care, and performance characteristics will be similar.

### Before installation

- Local building codes must always be consulted when building an exterior deck. Most Municipalities require building permits.
- Install the decking boards with a slope of 1-2% to allow water to run off the surface. Decking installed without slope may result in surface water pooling. Which may result in water staining and premature fissures in the decking surface.
- MOSO® Bamboo Outdoor can be installed very close to the ground, as little as 4" above permeable surfaces. It is highly important that adequate airflow and drainage is planned for and achieved. Pooling water or stagnant airspace will result in moisture issues that may cause failure. This can be achieved by sand layers and gravel below the decking substructure.
- In applications where the deck is being built closer to wet ground, a vapor barrier is recommended to prevent water from absorbing into the underside of the material. However, the area must be sloped to allow water to drain away.
- Be sure to order finished edge boards (1-groove) for deck edge, stair treads etc. Available in 6" or 8". Contact your supplier for options.

### Safety

Drilling, sawing, sanding, and machining MOSO® Bamboo Outdoor generates very fine dust. Avoid inhaling dust by wearing a dust mask. Contact MOSO for MSDS information.

### Required tools

- Drill
- Drill bits
- Safety glasses
- Power screw gun with ratcheting torque setting. Avoid impact drivers, which will snap screws.
- Chop saw
- MOSO® Bamboo Outdoor can be crosscut with a quality chop saw, using a carbide-tipped fine finish blade. Ripping can be done on a standard table saw, using a properly aligned quality fence with a carbide-tipped blade.
- MOSO® Bamboo Outdoor can be routed or planed with high-speed steel or carbide cutters. When required, only sand in the direction of the grain - i.e. belt sander. Never use an orbital sander.
- Starborn Industries produces Pro-plug screws, plugs, and bits that match MOSO® Bamboo Outdoor Thermo. Be sure to ask your supplier for these.
- This product works like wood. It can be cut with any wood cutting tool: routed, planed, drilled, chiseled etc. Carbide tipped fine finish blades will last the longest.
- A red carpenter's pencil makes the clearest, most readable mark on MOSO® Bamboo Outdoor.

### The installation

#### Spacing

- MOSO® Fasteners will provide a 1/4" gap between boards. If a narrower gap is desired, Deckwise® clips for grooved wood decking or Camo® fasteners are acceptable.
- Because of the stability of the boards and the shape of the end-match system, no expansion gap is needed on the ends of the boards.

#### Joist span

- If building a new deck frame, plan joist spacing at 12", 18" or 24" OC, and seam boards on joists. DO NOT seam off-joist at 18" or 24".
- MOSO® Decking can also be installed on 16" OC framing. Run decking like flooring, seam off-joist and add a spacer clip on either side of each seam to keep boards aligned as the deck framing shrinks and swells.
- Proper blocking is recommended every 24" to prevent movement of the joists resulting in separation at the ends of the deck boards.
- Stagger end joints so they do not line up from one row to the next.
- When decking installation is on an angle, or a random pattern is desired, the joist spacing should be 12" centers. Determine the final joist spacing only after talking with local building code officials.

#### Installation with MOSO® Fasteners

- Determine the surface side of the boards (reeded or smooth surface). MOSO® Bamboo N-durance® Rain-Shed decking has a cambered surface which is always the top side.
- Use the MOSO® Asymmetric Fasteners in the following sequence:
  - Press fastener with hooked side in the groove of one board.
  - If using standard softwood framing drive screws directly into framing. DO NOT USE AN IMPACT DRIVER WITH STAINLESS STEEL SCREWS.
  - Fully tighten the screw. Always screw vertically to the joist. Apply low torque with slow screwing speed on the drill. Perform some tests for correct torque and speed adjustment before full installation.
  - Install every following board by sliding it under the waved side of the fasteners.
- When floating the joint between joists place a loose fastener on both sides of joint to help provide increased stability in the event that the joists move.
- Only use the included stainless steel decking screws with fasteners (4.5 x 30 mm).



#### Number of fasteners needed per sqft

Outdoor width	On center		
	16"	18"	24"
4"	2.65	2.12	1.8
6"	1.85	1.48	1.11

#### Face-screw installation

- Determine the surface side of the boards (grooved or smooth surface). Face-screw installation is not recommended for MOSO® Bamboo N-durance®.
- Pre-drill the screw holes minimum 3/4" from the side of the board. Be sure to pre-drill with a large enough drill (80% of screw diameter) to avoid cracking of the decking.
- We recommend using a countersink bit with a positive stop.
- Screws should be 305 grade stainless steel. Salt water contact may require 316 grade stainless steel, please consult local building codes.
- Always screw both sides (left and right in the width direction) of the board.
- Use a high quality stainless steel quality decking screw with a minimum length of 1 5/8" for 1x6 decking. DO NOT USE AN IMPACT DRIVER ON STAINLESS STEEL SCREWS.

#### Best practices

- Ensure that there is adequate airflow below the deck, especially when installing close to ground level. Even though the MOSO® Bamboo Outdoor can be installed closer to the ground than any other natural material, proper air flow is a separate issue and can have an adverse effect on the deck if not properly done.
- Don't forget to float a fastener at the end-match when floating the joint. The fastener will provide added support and helps to maintain proper spacing between the boards. This applies to the decking as well as the siding.
- If you want to maintain the unfinished look of Outdoor Thermo, MOSO recommends cleaning the deck with the Messmer's Deck Cleaner and Brightener. Finishing with Messmer's MOSO® Bamboo Oil will bring back the brown tone of MOSO® Bamboo Outdoor Thermo and help to repel dirt, water, and stains. For MOSO® Bamboo N-durance®, clean the deck with Woca Exterior Wood Cleaner. For sanded or previously unfinished N-durance® boards, priming the surface with Woca Exterior Wood Primer is needed to improve acceptance of the oil finish. Finishing with Woca Exterior Wood Oil will bring back the warm, amber color.



# MOSO® Bamboo Outdoor Decking

## Installation instructions

### Cleaning and maintenance

#### MOSO® Bamboo Outdoor Thermo

- The MOSO® Bamboo Outdoor Thermo Decking Board is a natural product. Therefore, some variation in color, grain, and appearance is normal. Color can change fast from dark brown to brown or grey, depending on the climatic conditions and maintenance schedule.
- **Annual cleaning of your MOSO® Bamboo Outdoor Thermo Decking is recommended. Clean the deck using warm water, mild deck cleaner, (Messmer's Deck Cleaner and Messmer's Brightener) and stiff bristle brush.** If Messmer's cleaners are unavailable in your area, any Oxalic Acid based cleaner for hardwoods will suffice.
- After cleaning and drying, apply a coat of exterior finish (Messmer's MOSO® Bamboo Finish Oil). If Messmer's products are unavailable in your area, any outdoor penetrating oil finish for hardwoods will be acceptable.
- We recommend to repeat this (cleaning + applying a coat of exterior finish) at least once per year.
- It is important to remember that the color of MOSO® Bamboo Outdoor Thermo is all the way through. This is the color of cooked bamboo; it is not a topical treatment. Sanding of the decking is possible to remedy most finish or superficial damage issues.

### Cleaning and maintenance

#### MOSO® Bamboo N-durance®

- The MOSO® Bamboo N-durance® Decking Board is a natural product, some variation in color, grain, and appearance. The color and texture will change over time, depending on the maintenance schedule.
- The boards have a warm, amber color when installed, which slowly lightens in the months after installation. Without further maintenance, the color will turn gray as a result of UV radiation (similar to most other wood species) and the surface of the boards become slightly rougher.
- Annual maintenance with Woca Exterior Wood Oil is required to maintain the warm, amber color and the surface mildew resistance. For decking oiled with Woca Exterior Wood Oil, it is recommended to perform the first maintenance after 3-4 months.
- The factory applied finish is Woca Exterior Wood Oil color: Teak. If Woca products are not available in your area, any penetrating exterior wood oil in the color of your choice is acceptable.

### Storage and handling

MOSO® Bamboo Outdoor should be stored under cover prior to installation. This is to avoid staining from standing water and premature uneven UV exposure.

### Additional note

While all due care is taken to ensure the accuracy of these installation instructions, individual circumstances (location, deck design, and installation procedures) may vary and are beyond the manufacturer's control. In case of doubt, please consult your local dealer/distributor, and always follow the local building code.

MOSO warrants the bamboo material and the mounting materials (fastener/screw) it supplies, but does not warrant the connection with other materials (such as sub frame joist/battens). It is the responsibility of the installer to make sure the screw being used matches such materials during the full lifetime of the product.

**These instructions are subject to change. For the latest version visit [www.moso-outdoor.com](http://www.moso-outdoor.com)**

Copyright © Nothing from this text may be reproduced without the prior permission in writing from Moso North America Ltd., Inc.

EN-NA-2024-01

