

# MOSO® bamboo x-treme® 1x4 T&G installation instruction

## storage and handling

MOSO® Bamboo X-treme® should be kept out of direct sunlight and should not be exposed to inclement weather before installation.

## safety

Drilling, sawing, sanding, and machining MOSO® Bamboo X-treme® generates dust. Avoid inhaling dust by wearing a dust mask. Contact MOSO® for MSDS information.

## required tools

- Powernail 50P 18 GA. cleat nailer
- Rubber mallet (comes with the nailer)
- 1 3/4" 18 GA. flooring cleats (DO NOT USE 16 GA.) available from Powernail (L175185) and Grip-Rite (GRFLN175)
- Drill
- Drill bits
- Safety glasses
- Bamboo X-treme® can be crosscut with a quality chop saw, using a (40 tooth) carbide-tipped blade. Ripping can be done on a standard table saw, using a properly aligned quality fence with a carbide-tipped blade.
- Anchorseal-2 Wood Sealer or equivalent is strongly recommended on cross-cut ends to minimize the effects of weather on these exposed ends.
- Bamboo X-treme® 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.

## before installation

- Water logging under the flooring must be avoided by preparing a water permeable ground structure. This can be achieved by sand layers and gravel dispersion above.
- Install the floor boards with a slope of 1-2% to enable water to run off the surface.
- There must be adequate air circulation underneath the floor to prevent cupping and warping of the boards.
- When the surface underneath the flooring is not fast drying, there should be at least 4" distance between the floor and the surface underneath the floor.
- In applications where the floor is being built closer to wet ground, a vapor barrier is recommended to prevent water from absorbing into the underside of the material.

## please note

- Local building codes must always be consulted when building an exterior deck. Most counties require building permits.
- MOSO® Bamboo X-treme® is a natural product, which varies in color, grain and appearance. Color can change fast from dark brown to brown or gray, depending on the maintenance schedule.

## the installation

### spacing

- Spacing between the house and product is recommended. An 1/4" space is recommended. When fastening the material to the joists it is not necessary to pound the boards together but rather snug the board to the previous one while checking for run out as you move across the floor. The flooring should be installed directly to the joists and not to plywood
- Because of the stability of the boards and the shape of the end-match system no expansion space is needed on the end of the boards.
- Every cut ends has to be impregnated with board end wax, to prevent water penetration.

### end sealer

- Use cross cut end sealer as part of the normal installation production to help prevent splitting and checking at the ends of the boards. We recommend that all boards be end sealed as soon as reasonably possible after cutting, using a clear, water-resistant wax. Anchorseal from UC Coatings is one of the most well-known end sealer products, although there are others available.
- **NOTE:** Failure to end seal the boards at the time of installation may lead to checking which is not covered by the warranty.

### joist span

- The recommended maximum span is 12" on center - but your local building codes may be less.
- End joints should meet on top of the joists and be properly supported.
- For best appearance and strength, end joints should be staggered to prevent direct alignment of the ends.
- In case the end joints don't meet perfectly atop the joist, sistering blocks can be installed on the joists, to allow for room for the cleat.
- When the floor installation is on an angle, the joist spacing must maintain the 12" centers and cover four joists. Determine the final joist spacing only after talking with local building code officials. MOSO will not be responsible for an insufficient load bearing structural design.

### installation with hidden fasteners

- We recommend using the Powernailer 50P 18-gauge cleat nailer which is widely available as the choice of flooring professionals. Use only 18 gauge cleats as noted above.
- Each floor board must be installed flush and tight against the joist system with a fastener insert through the tongue and into the joist. Ensure joists are properly aligned on the top; use shims if necessary.
- Fasteners should be attached at 45 degrees from vertical into the end-match system and into the board and joist below. Test the gun using a scrap piece of flooring to ensure that the bottom plate/foot of the nailer is properly positioned so the fastener is installed in the correct place and angle.
- Installers should adjust the pressure to ensure the fastener is placed just below the surface (generally 80 to 90 psi no greater). A setting tool or punch is handy to drive fasteners below the surface if needed.
- Always apply firm pressure to the nailer by holding it in contact with the material, centered over the joist and stabilizing it at a 90-degree angle to the flooring. The nailer will insert the cleat at a 45-degree angle seating the flooring directly to the joist. Be careful when attaching fasteners close to edge to avoid splitting the end-match system.

- The first board and final boards should be face screwed to the joist system using stainless steel screws, predrilled and countersunk. For concealing the screws use a common plugging system available in the market.

### screw down installation

- Pre-drill the screw holes 3/4" from the side of the board. Be sure to predrill with a large enough drill 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) of the board.
- Use stainless steel decking screws (min 1 5/8" on 3/4" net decking).

## maintenance

- Although Bamboo X-treme® is a manufactured product, its primary component is bamboo. Bamboo X-treme® will behave like a natural building material, and therefore, in order to maintain its original color you must coat Bamboo X-treme® after installation with an exterior UV penetrating oil finish. Please allow the Bamboo X-treme's factory coat of pre-primed penetrating oil wears off shortly after installation. The timeframe of this initial period varies with the amount of weather and foot traffic but is roughly 3-4 months.
- After cleaning and drying, apply a coat of exterior penetrating decking oil.
- We recommend to repeat this (cleaning + reapplying oil) at least once per year.
- See additional maintenance instructions at [www.moso-bamboo.com/maintenance](http://www.moso-bamboo.com/maintenance)

## additional note

Whilst all due care is taken to ensure the accuracy of the installation instructions, individual circumstances (location, sub floor and installation procedures) may vary and are beyond the manufacturer's control. In case of doubt, please consult your local dealer/distributor.

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

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