



TRINITY BAMBOO

INSTALLATION & MAINTENANCE GUIDELINES FOR SOLID STRAND BAMBOO FLOORING

NOTE: READ ALL OF THE FOLLOWING GUIDELINES BEFORE INSTALLATION

If you have any questions, please call Trinity Bamboo @ 1-888-248-6538 for support

Important Notes:

You have purchased a Trinity Bamboo Solid Strand Bamboo Flooring Product. This FloorScore® Certified Solid Strand Bamboo Flooring with a Tongue and Groove milling profile is suitable for a Glue-Down installation onto a wood or concrete subfloor or a Nail-Down installation onto a wooden subfloor. This product may be installed on or above grade (on, or above ground level). This product is not suitable for installation over radiant heating systems. Please check Trinitybamboo.com for the latest updates to these Installation Guidelines (this is version A816). Prior to installation, please ensure that you have read Trinity Bamboo's warranty.

Disclaimer: Trinity Bamboo, LLC has provided this information "as is" without warranties of any kind, expressed or implied. Trinity Bamboo has made every reasonable effort to ensure the accuracy of the information and is not responsible for errors and/or omissions. All information is provided as a courtesy to our customers and is meant to be understood as an installation guideline only. The customer and/or the installer is solely responsible for any and all decisions regarding how, where, and when to install any Trinity Bamboo product. It is the sole responsibility of the installer and the property owner to determine if the job site's sub-floor and environmental conditions are suitable for the installation of Trinity Bamboo flooring and accessories. Trinity Bamboo makes no warranty or guarantee of the quality of the chosen installer's work or of a particular installation performed by the installer. Trinity Bamboo disclaims all liability for any errors or improprieties in the installation of its products. Other than for those conditions specifically detailed in Trinity Bamboo's warranty, installation of any Trinity Bamboo product serves as unconditional acceptance of that material.

- This flooring product is suitable for installation onto an above-grade or on-grade subfloor (above ground level or at ground level).
- Solid bamboo should **NOT** be installed over radiant heating systems
- Do not deliver or install flooring until the building has been enclosed with windows and doors, and all cement, plastering, and other "wet" work has been completed.
- Flooring must be delivered to the job site a minimum of 72 hours prior to installation to enable it to acclimate to site conditions. **If the relative humidity in the installation environment is outside of the 35% to 55% range, acclimation may take as long as 14 days.** Read "Acclimation" section below.
- Handle and unload flooring with care. Store in a dry place with at least a four-inch air space under cartons. Do not store boxes on uncovered concrete or other cementitious materials.
- Install into environments with HVAC systems able to consistently maintain 35-55% Relative Humidity at 70° Fahrenheit.

- The use of a moisture vapor barrier (over cementitious subfloors) or a moisture vapor retarder (over wood subfloors) is mandatory.
- Ensure flooring is installed in such a manner to allow for up to 1/2" expansion or 1/2" contraction around walls or any other fixed object.
- Trinity Bamboo recommends adding 5% additional material to the actual square footage needed to allow for cutting waste. Store extra material in a dry location.
- Save the end of a box showing the product run code and manufacturing date. Installer shall document installation date, flooring moisture content, name, model, and settings of moisture testing tool, site relative humidity, site temperature, and subfloor moisture content. **This information must be retained by the installer and left with the property owner as a permanent record.**

Installation Notes:

You must read all of the following guidelines completely before beginning installation. Responsibility for the suitability of the job site and for the installation of this flooring is solely up to the consumer and the installer. If you have concerns about the appearance, quality or physical dimensions of any Trinity Bamboo flooring plank or accessory do not install it. Call Trinity Bamboo at 1-888-248-6538.

Tools & Accessories Needed - (All Installation Methods)

Broom • Tape measure • Hammer • Chalk line & chalk • Hand saw or jamb saw • Recommended hardwood flooring cleaner • Electric power saw • Eye protection • Recommended wood glue • Moisture Meter (wood, concrete or both) • Hygrometer • Transition and wall moldings • NIOSH designated dust mask

(Add for Glue-Down Installations)

Recommended moisture barrier • Recommended adhesive and adhesive remover • Recommended trowel for adhesive

(Add for Nail-Down Installations)

Pownail 50M or 50P or Port-A-Nails 418A Evolution
18 gauge cleats (at least 1.5" in length)

MATERIAL EXPANSION AND CONTRACTION: Solid Strand Bamboo floors, like all natural fibers, will expand during periods of high humidity or heat and will contract during periods of low humidity or cool temperatures. Material expansion and contraction is never considered to be a manufacturing defect. Expansion and contraction can be minimized by controlling temperature and relative humidity levels and by allowing for proper acclimatization of the product prior to installation.

COLOR VARIATION: Bamboo is a natural product. Within a box of flooring and from one box of flooring to the next, every plank may look slightly different and may have both color, shade, and texture variations. Do not install boards with high color or shade contrast next to one another unless this is the aesthetic you explicitly desire. Color variation between planks is beautiful and normal and is not a manufacturing defect. If you find any planks that have visible material defects or are not beautiful – don't install them.

ACCLIMATION: Trinity Bamboo Solid Strand flooring is factory acclimated to a 7-10% moisture content which parallels the equilibrium moisture content point for an installation environment having a relative humidity (RH) range of 35-55% at 70 degrees Fahrenheit. The ideal relative humidity range into which this product should be installed is between 35-55%. If you acclimate or install this floor into an environment with a RH lower than 35-55% your floor will shrink slightly. If you acclimate or install this floor into an environment with a RH higher than 35-55% your floor will expand slightly. It is important for this contraction or expansion to occur prior to

installation. Flooring that has not been acclimated can expand and buckle or shrink and gap or cup after installation.

Acclimate planks out of the box, sticker-stacked (all edges and faces exposed), for a minimum of 72 hours prior to installation. Always acclimate the flooring in the installation environment at the temperature and relative humidity at which it will be maintained on an ongoing basis (if you are going to keep your house at 72 degrees at 55% relative humidity year-round then acclimate your flooring prior to installation at this temperature and relative humidity). Note – if you are acclimating a floor to RH conditions substantially different than the suggested range of 35% - 55%, it may take up to 14 days for the planks to completely acclimate. Acclimation is complete when the moisture content of your floor no longer changes.

ACCEPTABLE MOISTURE VAPOR BARRIER AND MOISTURE VAPOR RETARDERS:

- **Concrete Subfloors:** Always use an impermeable vapor barrier system with a perm rating less than or equal to .13. For glue-down installation you will be using a Vapor Barrier / Adhesive system such as one of the following:
 - Franklin Titebond 531 PLUS Moisture Control System for use in conjunction with Titebond 771, 811, or 821 adhesive)
 - Wakol PU280 Moisture Barrier and Wakol MS260 Adhesive
 - **Wood Subfloors:** For nail down installations, use a UU-B-790a, Grade B, Type 1, Style 1a permeable vapor retarder such as (Fortifiber Aquabar “B”) or equivalent material with a perm rating between .7 and 1. For glue down installations, use an adhesive having moisture vapor retardation properties such as Franklin Titebond 771

CONCRETE SUBFLOORS: Trinity Bamboo Solid Strand flooring can be glued-down over concrete that is above or on grade. Concrete substrates are required to be dry (year-round), sound, smooth and level. Fill any low spots with a leveling compound and scrape any high spots. Tolerance of level must be within 3/16” in 10’.

Your concrete slab **MUST** be tested for moisture in more than one place to ensure accurate readings. Trinity Bamboo recommends using the Calcium Chloride Test Method to quantify the volume of moisture vapor radiating from a concrete slab and / or a Relative Humidity Probe test to quantify the amount of relative humidity within the slab as follows:

Acceptable ASTM industry standards for concrete moisture testing:

- Probe Method: (ASTM F2170): The Relative Humidity levels should not exceed 75%.
- Calcium Chloride Test (ASTM F1869): The maximum vapor emissions cannot exceed 3lbs/1000SF in 24 hours

Before gluing down your Solid Strand Bamboo floor to a concrete subfloor, coat your concrete subfloor with a true vapor barrier having a perm rating less than or equal to .13. Trinity Bamboo recommends the use of a low-VOC, premium, water-free vapor barrier and adhesive system specifically recommended by the adhesive manufacturer for use with Strand Bamboo flooring. Note: Always use a vapor barrier/vapor retarder and adhesive system manufactured by the same company – never mix products. Do not cut corners in this area – most “all in one” adhesives do NOT meet the criteria as being a true moisture vapor barrier. If you do not use a true moisture vapor barrier it is possible that moisture will migrate through the concrete and enter into your Strand Bamboo flooring which WILL cause your floor to cup and or buckle.

WOODEN SUBFLOORS: Trinity Bamboo Solid Strand flooring can be glued onto or nailed down to a wooden subfloor. Subfloor must be dry, clean, and level. Fill any low spots with appropriate filler and sand any high spots. The tolerance of level must be within 3/16” in 10’. Use a handheld moisture meter to check the moisture content

of your wooden subfloor. Wood subfloors must not have a moisture content (MC) greater than 2 percentage points more than the flooring being installed (if your flooring has a 9% MC, your subfloor should have a MC no higher than 11%). Note – to prevent moisture from migrating into your subfloor, check basements and under-floor crawl spaces to be sure they are dry and well ventilated. For buildings with crawl spaces, 10 mil polyethylene sheeting should be used as ground cover over the earth in the crawl space.

NAIL DOWN INSTALLATION METHOD:

1. Clean your subfloor carefully, removing all staples, nails, and other surface contamination. Prior to installing flooring, roll out Aquabar “B” or similar moisture vapor retarder in the same direction of the flooring (perpendicular to floor joists). Overlap each row by 3” to 4”.
2. Determine the direction of the floor joists – Run the flooring perpendicular (90°) to the floor joists. Do not run flooring parallel to floor joists.
3. Establish a starting point. Preferably the longest exterior wall running parallel with direction of flooring and perpendicular to the joists.
4. Measure the total width of the flooring (including the tongue), plus 1/2” for expansion. Measure out this distance in at least 2 places from the starting wall and 12” from the corners. Snap a chalk line parallel to the starting wall.
5. Choose the longest and straightest boards and align the planks tongue with the working line, cut the last plank to the proper length leaving a 1/2” from the end wall.
6. Top nail the boards into place approximately 6” apart and 1” from the back edge (groove side) using a pneumatic finish nailer or 7d or 8d hand nails. Always pre-drill pilot holes if you are hand nailing. Use a nail set to sink the nail heads below the surface of the flooring. Fill the holes with matching wood putty.
7. Continue to blind nail by hand each row until the nailer/stapler can be used to install the flooring. It is critical to make sure the starting row is properly aligned and straight.
8. Pre-drill holes spaced 6” to 8” apart at a 45° angle along the tongue and blind nail the plank – countersink nails with a nail set.
9. Once the first row is in place, continue to lay out the planks. Working from several cartons, blend the planks and stagger the end joints a minimum of 6” apart to ensure a favorable appearance. Avoid H-Joint and other repeating patterns in the floor.
10. Once enough of the planks are laid out, begin installing the planks using either a manual or pneumatic nailer using 1 ½” 18-gauge cleat nails. Check to ensure the fastener is set to the proper depth and angle by adjusting the nailer shoe. Fasten the planks approximately 2” to 3” from the ends and every 8” apart.
11. Continue installing planks across the room ending at the far wall using the manual or pneumatic nailer. Remember, never waste materials; The end cuts from starter rows should be used at the opposite side of the room to complete rows or used to start the next row. As you reach the far wall it may be necessary to blind nail by hand until top nailing is required.
12. It may be necessary to rip (cut lengthwise) the planks in the last row to ensure that there is a ½” expansion gap. If the last row is 1” wide or less glue, the pieces to the last full uninstalled row and install them together. If needed use a pry bar or lever to fit the remaining rows tight to the installed planks.
13. Top nail the last 1-2 rows into place approximately 6” apart and 1” from the back edge (groove side) using a pneumatic finish nailer or 7d or 8d hand nails. Always pre-drill pilot holes if you are hand nailing. Use a nail set to sink the nail heads below the surface of the flooring. Fill the holes with matching wood putty.

GLUE DOWN INSTALLATION METHOD: Note – the following are generalized instructions. Many adhesives require slightly different installation techniques. Please follow the instructions provided with the adhesive you purchase. If adhesive gets onto the surface of the flooring – REMOVE ADHESIVE IMMEDIATELY or it may permanently damage your floor. Note – even with immediate removal, adhesive contamination may permanently damage a plank’s surface (be visible to the eye as a sheen variation)

1. If gluing down to a concrete subfloor, apply your moisture vapor barrier first per the manufacturer’s instructions

2. If gluing down to a wood subfloor, ensure that the adhesive you have chosen is approved for Strand Bamboo and has moisture vapor retarder qualities.
3. If installing over a wood subfloor, determine the direction of the floor joists – Run the flooring perpendicular (90°) to the floor joists. Do not run flooring parallel to floor joists. Flooring may be installed in any direction over a concrete slab.
4. Establish a starting point. Preferably the longest exterior wall running parallel with direction of flooring and perpendicular to the joists.
5. Install ½” wedges along the wall and begin racking out your first four rows of flooring, sorting for color consistency and quality. Cut the last plank of each row to the proper length leaving a 1/2” gap between the end and the wall. Rack out three additional rows, staggering the end joints a minimum of 6” apart to avoid H-Joint and other repeating patterns in the floor. Make a mark on the subfloor along the tongue edge of the last row of planks. Next, move these four rows away from the working area, maintaining their order. This is the material you will work from once you have spread some adhesive onto the subfloor.
6. Spread enough adhesive to cover the subfloor just past your mark. Ensure you use the trowel size recommended by the adhesive manufacturer.
7. Place flooring onto adhesive, one row at a time, making sure that all joints are tight and parallel and that end gaps are maintained and the ends of each row.
8. Continue to work your way across the room in this manner (racking out a few rows at a time) until you approach the opposite wall.
9. It may be necessary to rip (cut) the planks for the last row lengthwise to allow for the 1/2” expansion gap. If needed use a pry bar or lever to fit the remaining rows tight to the installed planks.
10. When installation is complete, use wedges or some object to hold your floor in place while adhesive dries. Remove wedges after initial setting of adhesive (check adhesive manufacturer’s recommendations) to allow for normal expansion of wood. Failure to remove wedges may cause the bamboo flooring to buckle and pop off the substrate.

TRINITY BAMBOO FLOOR CARE AND MAINTENANCE

Trinity Bamboo’s factory finished flooring will show signs of wear over time, depending on the size and lifestyle of your family. By observing a few simple precautions and setting up a regular cleaning routine and maintenance program, you can expect many years of beauty from your Trinity Bamboo floor.

The following are examples of the reasonable and necessary maintenance you are expected to perform. They are not intended to be an exclusive list.

1. Sweep or vacuum regularly since built-up grit can damage the surface of your bamboo flooring. The vacuum head must be a brush or felt type. Be certain the wheels of the vacuum are clean and do not damage the finish. Do not use a vacuum with a beater-bar head.
2. Remove spills promptly using a soft cloth and cleaning products recommended by Trinity Bamboo.
3. Never wet-mop, damp-mop, or clean your floor with water or other products. This can severely damage the flooring, and damage resulting from these actions may not be covered under Trinity Bamboo’s warranty. Do not use hardwood floor cleaning machines or steam cleaners.
4. Trinity Bamboo recommends Bona Pro Hardwood Floor Cleaner & Bona Pro Hardwood Floor Mop. Always vacuum the floors prior to using Bona Pro Hardwood Floor Cleaner. Do not allow excess cleaner to remain on the floor’s surface as this may permanently damage the wood fiber.
5. Important: Do not use oil soaps, liquid or paste wax products, or other household cleaners that contain citrus oils, lemon oil, tung oil, silicon, or ammonia as use of these and other such products will harm the long-term performance of your floor and may also affect its re-coat ability.
6. Do not use 2-in-1 cleaners with polish that may contain acrylics or urethane polish to restore gloss — damage resulting from the use of these products may not be covered under warranty and may produce unsatisfactory results when not applied properly.

7. Keep pets' nails trimmed and paws clean and free of dirt, gravel, grease, oil, and any other material which may stain your floor.
8. Place protective felt pads beneath furniture legs and feet to reduce scratches and dents. Replace pads as needed.
9. Use a dolly and protective sheets of plywood when moving heavy objects, furniture, or appliances.
10. Use walk-off mats at entrance doors and in front of kitchen sink. Avoid rubber backed or other non-ventilated mats or rugs as they may cause discoloration.
11. Make certain furniture casters are clean and operate properly (a minimum 1"-wide vinyl surface where it comes in contact with bamboo is recommended). Clean wheels periodically to remove dirt and debris.
12. Remove shoes with spiked or damaged heels before walking on floor.
13. Exposure to the sun and its UV rays accelerates the oxidation and aging of bamboo. This can cause the stain and/or the bamboo itself to fade, darken, and/or to change color. We recommend that you rearrange rugs and furniture periodically so the floor ages evenly. The Trinity Bamboo warranty does not cover damage due to discoloration caused by the sun and/or UV rays.
14. Use area rugs in high-traffic areas and pivot points (e.g., stair landings, room entries, etc.), especially if you have a large family or indoor pets.
15. Maintain the recommended relative humidity in your home between 35% – 55%.