



## TRINITY BAMBOO

### INSTALLATION & MAINTENANCE GUIDELINES FOR ENGINEERED 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 Engineered Strand Bamboo Flooring product. This FloorScore® Certified, CARB II Compliant, Engineered Strand Bamboo Flooring with a Uniclic® locking system is suitable for installation as a floating floor above, on, or below grade. Please check [Trinitybamboo.com](http://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 as a floating system above, on, or below grade (above, on, or below ground level).
- 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. 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.
- The use of a moisture vapor barrier (over cementitious subfloors) or a moisture vapor retarder (over wood subfloors) is mandatory.
- Install into environments with HVAC systems able to consistently maintain 35-55% Relative Humidity at 70° Fahrenheit.
- 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. Remember, floating floors move and shift, not just expand and contract.

- This flooring may be installed over radiant floor heating systems (see “Radiant Heating” section below). The surface Temperature of your flooring must never exceed 85° F.
- Trinity Bamboo recommends adding an 5% additional material to the actual square footage needed to allow for cutting waste. Store extra material in a dry location.
- Floating installations: Always install transition pieces between rooms etc. to allow unique spaces to expand, contract, and shift in an unrestricted manner. NOTE: Never install cabinets or walls on top of a floating floor.
- 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 and understand these instructions 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

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

**MATERIAL EXPANSION AND CONTRACTION:** Engineered Bamboo floors 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 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 to have this contraction or expansion 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). Acclimation is complete when the moisture content of your floor no longer changes.

## ACCEPTABLE MOISTURE VAPOR BARRIER AND MOISTURE VAPOR RETARDERS:

- **Concrete Subfloors:** Use an impermeable vapor barrier system with a perm rating less than or equal to .13.
  - Use 10mil Polyethylene Sheeting or equivalent
- **Wood Subfloors:** Use a UU-B-790a, Grade B, Type 1, Style 1a permeable vapor retarder or equivalent with a perm rating between .7 and 1
  - Use Fortifiber Aquabar “B” or equivalent

**RADIANT HEATING INSTALLATIONS:** Concrete must be allowed to properly cure and dry a minimum of 8 weeks prior to the installation of your flooring. Moisture vapor emission rate for concrete subfloors must not exceed 3 pounds per 1000 sf per 24 hours using Calcium Chloride test ASTM F1869, or 75% RH using the Relative Humidity Probe test ASTM F2170. 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 – for installations over radiant heating systems, you must install a moisture vapor barrier over concrete subfloors or a moisture vapor retarder over wooden subfloors.

T-molds must be used to separate heating zones.

The radiant heating system should be set to run at 2/3 of maximum output for a minimum of 2 weeks prior to installation of flooring to further allow moisture from concrete to dissipate. This must be done in both heating AND non-heating seasons. Reduce heat to a temperature of 65° 4 days prior to installation. Set-back style thermostats are NOT recommended. Use of a separate thermostat for each individual room is required. An outdoor temperature sensor is highly recommended to adjust temperature according to anticipated heat loss. Subfloor surface temperature for radiant heat installations shall not exceed 85°. T-mold accessories must be used to separate heating zones. Expect some seasonal expansion and contraction.

**INSTALLATION ON CONCRETE SUBSTRATE:** Trinity Bamboo Engineered Floating Floors can be installed over concrete that is above grade, on grade or below grade. Concrete substrates are required to be dry (year-round), sound, smooth and level. Tolerance of level must be within 3/16” in 10’. An uneven subfloor will make the floor feel unstable and may cause noise or premature damage to the floor itself or to the Uniclic® locking system. Your concrete slab should be at least 60 days old and MUST be tested for moisture in more than one place 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 industry standards ASTM 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

Fill any low spots with a leveling compound and scrape any high spots. Before installing your Engineered Bamboo Floating Floor, cover concrete floor with a true moisture barrier such as 10 mil or thicker polyethylene sheeting. Run the polyethylene sheets up the wall 3”, overlap seams 8”, and tape the sheets together (joints lapped 6” using moisture resistant tape). Install underlayment over this moisture barrier. Underlayment should be no thicker than 1/8”.

**WOODEN SUBFLOOR NOTES:** Subfloor must be dry, clean, and level. Fill any low spots with appropriate filler and sand any high spots. Tolerance of level must be within 3/16" in 10'. An uneven subfloor will make the floor feel unstable and may cause noise or premature damage to the floor itself or to the Uniclic® locking system. Subfloor must not exceed 11% moisture content. Check basements and under floor crawl spaces to be sure they are dry and well ventilated to avoid damage to planks caused by moisture. For buildings with crawl spaces, 10 mil polyethylene sheeting should be used as ground cover over the earth in the crawl space. Cover wooden subfloor with a vapor retarder with a perm rating between .7 and 1 such as Aquabar "B" (sold as Tile Underlayment).

**UNDERLAYMENT:** Underlayment up to 1/8" thick must be installed over your moisture barrier (concrete subfloor) or your vapor retarder (wooden subfloor). Unroll underlayment, 1 strip at a time, wall to wall. Run up the wall around the perimeter of the room, trim after floor has been installed.

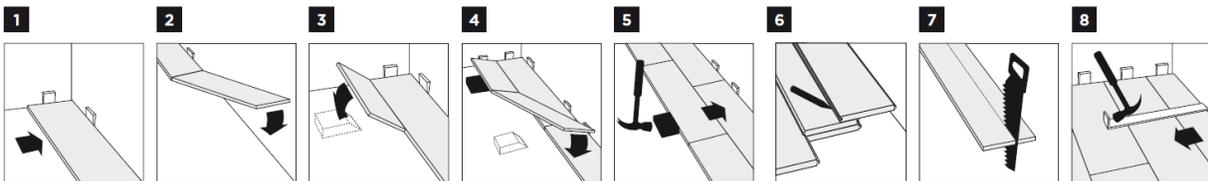
**STRING LINE:** Choose the longest wall that will be parallel to the plank floor. Tap a nail 1/2" from the wall at each end of the room. String a line between the nails 3/4" above floor level. Use this string as a guide-line for the first row of planks. **SHUFFLE FLOORING PLANKS FOR BEST VISUAL MIX.** Mix planks from various cartons to maintain natural color and pattern variation and to enhance the beauty of your natural floor.

### **INSTALLATION:**

Ensure that you leave a 1/2" expansion and contraction space around the floor's perimeter allowing the floor to move, expand, or contract up to this amount without the floor hitting the walls or without revealing the edge of the installed flooring planks.

**NOTE:** The Installation of an expansion joint (T-Mold) is mandatory when transitioning from one room to another. Under no circumstances should the floor's ability to move freely be restricted. Color matching trim pieces are available for all floors.

**SUBFLOOR PREPARATION:** The subfloor must be dry (year-round), free of imperfections, and be flat and level to within 3/16" per 10' radius.



**FIRST ROW (1,2):** Start installing the floor in one corner (preferably parallel to the longest wall) following the direction the light falls. Install the floor from left to right. Always insert the tongue into the groove, not the other way around.

Facing the guide-line, place the first plank at the left-hand end, tongue side facing wall, starting 1/2" off the wall. Remove the tongue (cut it off) from all planks lining the starting wall. Use 1/2" spacers (because the planks themselves are 1/2" thick you can use cutting waste for spacers) at the end and along the wall (2 to a plank) while keeping the planks aligned with the string. Spacers keep planks from shifting when subsequent rows are added. Lock

the narrow side of the next plank using a tapping block and a hammer. Place block flat on floor, and tap gently until the ends of the two planks are firmly joined, with the joint completely closed up. Continue this process until you reach the end wall. Cut the last plank to fit allowing for 1/2" perimeter expansion space on all sides. NEVER TAP DIRECTLY ON THE SIDE OF THE BOARD AND ALWAYS USE A TAPPING BLOCK.

NEXT ROWS (3,4,5): If the cut-off piece from the previous row is more than 10" long it can be used to start the next row as long as end-joints between adjacent rows are always staggered by at least 10".

- a) Position the long side of the plank to be installed at an angle of 20-30° to the plank already installed. Move the plank to be fitted slightly up and down at the same time as exerting forward pressure.
- b) To connect the sides, use a number of smaller taps on the short edge with the tapping block, until the planks lock together completely.
- c) In some cases, such as under a door frame, the planks cannot be rotated into one another. In these situations, the planks can be fitted horizontally by tapping on the edges using the tapping block. A floor pull bar might be needed for tight spaces and in this case, it is recommended to use a piece of underlayment between the pull bar and the plank to protect its surface. In order to cut around pipes, use a drill bit with a diameter similar to the diameter of the pipe 1/2" for expansion.

LAST ROWS (6,7,8): Usually the last row will require all planks to be cut lengthwise. Measure each plank at several places along the length to ensure a proper fit. Remember to allow 1/2" expansion space along the wall side. Use floor pull bar and mallet, again protecting the surface of the floor using a piece of underlayment or other protective material.

FINISH: Remove all spacer blocks. Trim the extended underlayment and polyethylene sheeting. Never attach Base Molding board to the floor itself, but allow space for the floor to expand and contract underneath it. An expansion space of 1/2' is recommended around the perimeter of your room. In order to fill in the expansion gap around pipes and any other areas not covered by trim, use a flexible caulk.

## 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%.