

Before You Begin

Ambient bamboo flooring products are quality inspected before packaging and shipping. Nevertheless, a preliminary jobsite inspection of your flooring should be performed for grade, color, finish and quality. Ensure adequate lighting for proper inspection. If you find an irregularity in your flooring (that exceeds the 5% industry standard), please contact Ambient immediately for replacement. The installer and/or owner of our bamboo floors have the final inspection responsibility as to grade, manufacture and factory finish. The installer must use reasonable selectivity (common sense) to hold out, relocate in hidden places, or cut out pieces with glaring defects, whatever the cause. Installation of any material serves as acceptance of that material and Ambient will not accept responsibility for flooring installed with visible defects.

When our bamboo flooring is ordered, approximately 7% to 10% should be added to the actual square footage needed as allowance for cutting and waste. **Should an individual piece be doubtful as to grade, manufacture, or factory finish, the installer should not use that piece.** Our liability is limited to replacing defective material in excess of 5% that has not been installed. We do not pay labor or installation costs. All of our flooring products should be allowed to acclimate for **at least 72 hours** to allow flooring to adjust to room temperature and humidity. If you live in an area with high humidity (Florida for example) acclimate your flooring for **at least 1 week**.

Important notes about installing moldings. Installing strand bamboo trim pieces can be more difficult than trim pieces made of other materials. The strand woven material in particular is extremely dense and you will need to either a) pre-drill these moldings and then nail them, b) glue them in, or c) use a nail gun that can fire a 1" long micro thin nail (we suggest the Bostich Porter Cable 23 GA gun with a 1" long micro thin nail - this can be purchased directly from Bostich or rented).

Stair treads and transition moldings are installed best by gluing them down as opposed to nailing them. You can use the same Adhesive used to glue down your flooring or you can use liquid nails. Be sure to follow the instructions on the adhesive and do not use any water based adhesives. Once the molding piece is installed weight the moldings to ensure a solid bond. For transitions, blue painter's tape will help to hold the molding in place while the adhesive dries, and you may also want to place a weighted object on top of the molding to hold it down.

Tools needed

- Rubber mallet
- Tapping block
- 40-tooth carbide saw blade
- Spacers (wood or plastic)
- Chalk line
- Tape measure
- Carpenter's square
- Felt or resin paper

Jobsite Requirements

Prior to installation of any flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. Ambient is not responsible for floor failure resulting from unsatisfactory jobsite and/or subfloor conditions.

Ambient flooring should be one of the last items installed on any new construction or remodel project. All work involving water or moisture should be completed before floor installation.

Room temperature and humidity of installation area should be consistent with normal, year-round living conditions for at least a week before installation. Room temperature of 60 degrees to 70 degrees Fahrenheit and humidity range of 40% to 60% is recommended. Bamboo flooring is a living material which is hygroscopic and therefore reacts to changes of relative humidity. Consequently, its dimension changes. When humidity is highest in the summer this humidity is absorbed by the bamboo, which causes it to expand and in extreme cases it will "cup" because of the bamboo strips pushing against one another. These variations can be minimized with proper ventilation, heating or by the use of a dehumidifier. Alternately, in the winter when the humidity is low and the heating system is on, the bamboo releases its humidity and consequently shrinks or contracts. It is then recommended that you use a humidifier in order to minimize the shrinkage.

Store your flooring at the installation site for 72 hours before installation to allow flooring to adjust to room temperature and humidity. Do

not store the flooring directly on concrete or near outside walls. Only engineered flooring is acceptable for below-grade installation and basements.

Acceptable Subfloor Types

- Plywood or OSB 3/4"
- Concrete slab
- Existing wood floor 3/4" or greater

Subfloor Requirements

- Must be structurally sound
- Must be clean - thoroughly swept and free of all debris
- Must be level - flat to 3/16" per 10-foot radius
- Must be dry - subfloor must remain dry year-round. The moisture content of a wood subfloor must not exceed 12%, concrete moisture content must not exceed three pounds.

Wood subfloors must be dry and well secured. For nail-down installations, nail or screw every 6" along joists to avoid squeaking. If the subfloor is not level, sand down high spots and fill low spots with an underlayment patch or self-leveler such as Bostik Duralevel 83P Self-Leveling Underlayment.

Concrete must be fully cured, at least for 60 days. If it is not level, grind down high spots and fill low spots with leveling compound. The concrete must be flat to 3/16" per 10-foot radius. **Do not install on concrete unless you are sure it stays dry year-round.** All concrete must be tested for moisture, or a moisture barrier product must be used. We offer Bostik Ultra-Set® SingleStep™ moisture barrier, adhesive and sound barrier all in one.

Applications

Please refer to the recommended installation matrix at the bottom of this document. Depending on the product, the floor may be nailed or glued down over wood subfloors, glued directly to concrete subfloors on or above grade, or installed as floating flooring. (If installed below grade, a moisture membrane must be used. We recommend using a 3-in-1 membrane.) For all types of installation, joints must be staggered 10" to 20". Bridging the flooring across the floor joists is recommended. Note: Ambient does not recommend installing on particleboard (OSB is the only exception), unless the application is a floating floor.

Subfloor Preparation

Surfaces must be clean, dry, smooth and free of dirt, wax, oil, paint, curing agents and other contaminants that would interfere with adhesive bond. Old resilient floors can be installed over provided above conditions apply. Wood subfloors must be sanded level prior to new installation. In a glue-down installation, the use of a self-leveling product is acceptable as long as it is compatible with the underlying adhesive.

Concrete subfloors must have all cracks and holes filled with a cement-like patching material. While bamboo flooring is more stable than most woods, it is still subject to damage when in direct contact with a constantly wet slab. The bamboo must be isolated from this type of slab by use of a concrete sealant, reverse vinyl or sleeper subfloor. Concrete subfloors must be tested for moisture and not exceed three pounds per 1,000 square feet using the calcium chloride test.

If the moisture content of the subfloor exceeds three pounds, you must use a moisture barrier product. We offer Bostik Ultra-Set® SingleStep™ which is a combination of moisture barrier, adhesive and sound barrier. For more information on these products please contact Bostik directly at 888.592.8558.

Work out of multiple boxes

(4-6 boxes recommended)

Bamboo is a natural product and has natural color variations. Mixing cartons creates a natural, random shade effect. Never lay out a floor without paying attention to the overall look. You control the color and pattern of planks that are put down, therefore you control the true color and variation of wood in your floor.

Getting Started

It is recommended you begin installation next to an outside wall. Establish a working line by measuring an equal distance from the wall at both ends and snapping a chalk line. This is usually the straightest and best reference for establishing a straight working line. The distance you measure from the wall should be the width of a plank plus about 1/4" - 1/2" for expansion space. If the outside wall is out of square, adjust your working line to make it straight for the rest of your installation. Often, installers will snap their starting lines along the longest, most continuous run of flooring in the house. This is also a wise way to plan ahead so that you make sure the floor looks best where you want it to look best.

Nail-Down Installation

Additional tools you will need:

- Tongue-and-groove flooring cleat gun
- 18-gauge cleats, 1 1/4" - 1 1/2"

Product	Nail Gun	Gauge	Length	psi
Classic	Powernail 50P-Flex	18 gauge	1 1/4" - 1 1/2"	75-95
Strand Woven	Powernail 50P-Flex	18 gauge	1 1/4" - 1 1/2"	75-95

Planks should be started square with the room and parallel to its longest dimension by positioning with a chalk line, leaving 1/4" - 1/2" expansion space from base plate or wall. Ensure starter rows are firmly in place by wedging or face nailing. Once initial rows are secure, second and further courses should be blind-nailed directly above tongue at a 45 degrees to 50 degrees angle to the face. Fasteners should be spaced at 8" to 10" intervals with a minimum of six fasteners per piece. For wide plank products (four inches and wider) nailing every 6" to 8" is the standard. There should not be a fastener within three inches of each board end. It is recommended that you lay asphalt-saturated felt paper underlayment No. 15 evenly over the entire subfloor following manufacturer's instructions.

Be sure to practice on a few boards to set the proper pressures in the nail gun. If the pressure is too high the nail will try to split the board since bamboo flooring is very hard. Please take the time to set your nail gun pressures before you start and the job will be fast and easy. When laying the planks, small, light taps - as opposed to large, forceful taps - are best to get a snug fit. Note: As with traditional hardwood flooring, if the nails or cleats that are used are too thick, this will cause small bumps noticeable at the drive-in points. We strongly advise that you test on several planks before beginning your installation, and inspect your nail positions in all angles of light (bumps may be so slight that they can only be seen at the perfect angle). If you see bumps, you will need to move down in fastener size to a thinner size.

Regular 1 1/4" - 1 1/2" 18-gauge wood flooring nails can be used on all of our tongue-and-groove products. Outside of the aforementioned recommended nail size, successful installation depends on the product being installed and the tools being used to install it. Installation of bamboo flooring is the same as for traditional hardwood flooring products, therefore it does not require a change in tools, fasteners, or method. Always make sure pneumatic nail guns are kept well oiled and clean. Flooring should be square with the area and perpendicular to the joists. Leave a 1/4" - 1/2" expansion space from the base plate or wall. Once starter rows are secure, additional rows should be nailed directly above the tongue at a 45 degrees to 50 degrees angle to the face.

Ambient Strand Woven Bamboo Flooring: Due to the extreme density of this flooring we recommend gluing it down. If you choose to nail it down, it is the responsibility of the installer to verify the correct psi for the nail gun and installation environment. Fasteners should be nailed no closer than three inches from the plank ends and spaced at eight-inch intervals or as required to prevent tongue splitting or damage. Nail gauges larger than 18-gauge (i.e., 16-gauge) should not be used. They may damage the flooring and will void the warranty. Due to the density changes in bamboo (as with hardwoods), depending on the age of the plant and the density of the culm area of the plant being used, there may be slight differences in density from board to board. It is the responsibility of the installer to check each row after it has been nailed down to ensure that all cleats are sufficiently embedded in the planks so they won't cause dimples in the finished floor upon fastening the following row.

We strongly recommend a high-quality pneumatic nail gun. Setting will likely range between 75 psi and 95 psi, but the right air pressure will vary with the subflooring, depending on the quality and type of gun. If you want to face-nail rows on the perimeter of the installation, or for starter rows, this may require pre-drilling, gluing or wedging. Installation of certain moldings such as quarter round may also require pre-drilling.

Glue-Down Installation

Additional tools you will need:

- Bostik D321 100% Urethane Adhesive, Bostik Vapor Lock, or Bostik Single Step
- Adhesive remover wipes
- Blue painter's tape
- Trowel

Product	D-321	Trowel Size	Single- Step & Vapor Lock	Trowel Size
Classic	140 sq/ft	¼ x ¼ square-notch	120 sq/ft	¼ x ¼ v-notch
Strand	140 sq/ft	¼ x ¼ square-notch	120 sq/ft	¼ x ¼ v-notch

Important Glue-Down Clean-Up Note: Always test non-recommended cleaning agents on sacrificial planks or test planks of flooring before attempting to clean your newly installed floor with them, as they may cause blemishes in the finish. Ambient is not responsible for flooring damaged by adhesive that has cured or by cleaning agents. **Cleaning agents must always be tested beforehand on a sacrificial plank to ensure that they do not damage the finish.** We recommend Bostik Adhesive Remover Towels for removing adhesive from our floors. Note: if the adhesive cures it will be virtually impossible to remove, so please ensure that all adhesive is removed from flooring immediately. Do not use mineral spirits to remove adhesive from the bamboo flooring since it may dull the finish.

Adhesive must be 100% urethane. Bostik Durabond D321 Zero-VOC Premium Wood Flooring Urethane Adhesive is highly recommended. Read adhesive instructions carefully for proper trowel size and adhesive set time. Always leave a 1/4" to 1/2" expansion space between flooring and all walls and vertical objects (such as pipes and cabinets). Use wood or plastic spacers during installation to maintain this expansion space. Starting at an outside wall, spread as much adhesive as can be covered by flooring in one hour (or as recommended by the adhesive instructions). Spread adhesive with a trowel at a 45 degrees angle. When the ends of the plank come closely together, do not apply excessive force when tapping, since this could affect the finish. Small, light taps - as opposed to large, forceful taps - are best to get a snug fit.

When the first section is finished, continue to spread adhesive and lay flooring section by section until installation is complete. Remove any adhesive that gets on the flooring surface immediately using Bostik Adhesive Remover Towels. Apply blue painter's tape perpendicularly to the seam of adjoining rows to prevent the rows from spreading apart while drying. Walk each section of flooring foot-by-foot, or roll with a 100-pound roller, within the adhesive working time to ensure solid contact with the adhesive. Flooring on the perimeter of the room may require weighting until adhesive cures enough to hold the boards in place. Do not place heavy furniture or appliances on the freshly laid floor for 24 hours.

Click-Lock or Floating Installation

Additional tools you will need:

- Ambient 3-in-1 Underlayment
- Duct tape

Underlayment with 1 plastic side must be used when installing over concrete. If you purchased underlayment from Ambient, unroll the underlayment with plastic side down. Make sure the flat side of the roll is against the outside wall and the side with the excess plastic is towards the center of the room. Starting in a corner unroll the underlayment until it hits the far wall. Cut the underlayment leaving about ¼" between the underlayment and the wall. Roll out a parallel line of underlayment adjacent to the first roll. Cut at the wall and tape the entire length of the seam with duct tape. Note: When rolling out the adjoining length of underlayment be sure to overlap the plastic and tape foam to foam. This will prevent moisture from penetrating in between rolls. Do this for the entire room being sure to tape all seams. For ease of installation you can also tape down the perimeter of the underlayment to the subfloor.



Do not remove flooring from the packages until you are ready to begin installation. Removing the boards prior to acclimating the flooring could result in a difficult installation. Inspect each board before installation.

Start in the corner of the room with the locking edge open toward you and the L-shaped side toward the wall. Install the entire first row, clicking the end of each board and cut the last board to size. Be sure to leave 1/2"-wide space between the floor and wall. You can use expansion shims at 12" intervals. For a better expansion joint, it is recommended that the tongue be sawn off of each plank along the wall. Start the second row with a cut piece at least 18" in length. You can also use the cut board from the first row. When installing the second row, insert the long edge of the board at a 20 degrees to 30 degrees angle, adjacent with the first row. Push forward and down at the same time, and make sure the boards lock together. You will often hear a clicking noise. At the end of each row, use a rubber mallet as necessary to ensure that all edges are tightly fitted together. Do not hit the boards with too much force as you may cause damage to the clicking mechanism.

After installing the third row make any adjustments necessary to straighten the floor as additional installed rows will make it harder to shift. Repeat the installation instructions above throughout the entire room until you've reached the last row, making sure to apply an acceptable stagger pattern throughout. The last row will probably need to be cut lengthwise. To measure the last row, place a board directly on top of the last installed row of the boards. Scribe the row and cut to fit. Use a board puller to position the boards together.

For rooms longer than 30 linear feet, be sure to insert breaks or expansion gaps every 25-30' which can be covered by T-molds. In addition to these expansion gaps leave additional expansion room around the perimeter of the room. Transitioning between rooms where the connection is a doorway or narrow in width should always be made using T-molding. Narrow areas bridging two large floor expanses can create stress and fracturing in the floor. Note: Do not place heavy appliances on top of floating floors. Appliances like stoves, refrigerators and cabinets should be in place prior to installing a floating floor.

Once your flooring has been installed, you can begin to use it immediately. Our click-lock strand woven flooring is not recommended for installation in very dry climates unless installed in a controlled environment containing a humidifier.

Installing Bamboo Flooring Over Radiant Heat Systems

Not all of our flooring is warranted for use with a radiant heat floor. All floors installed over radiant heat systems must be glued down. In the cases where we do warrant a floor over radiant heating systems, we do so as long as the temperature does not exceed 85 degrees Fahrenheit. In addition, the radiant heat system cannot fluctuate in temperature rapidly. Room temperature should vary no more than +/-7 degrees Fahrenheit year round. Please consult the individual warranties for each product before you purchase.

Prior to installation, the temperature of radiant heating liquid should be set to its highest temperature and kept hot for 72 hours. This allows enough time for any remaining moisture to evaporate from the system, attaining its final moisture content. At least 72 hours before installation, the heating system must be reduced to a suitable temperature of around 65 degrees Fahrenheit. If the temperature of the surface slab is below 65 degrees Fahrenheit, the adhesive bond will be affected when the floor is installed by glue-down method.

Glue-down installation is the only acceptable installation method with our radiant-warranted bamboo flooring. Please make sure the adhesive used is safe with a radiant heating systems. Ambient recommends Bostik Durabond D321 Zero-VOC Premium Wood Flooring Urethane Adhesive for glue-down installations. When installing the floor, please leave 1/2" of expansion space from wall. During the process of installation, the temperature of concrete slabs should always be maintained at around 65 degrees Fahrenheit, which is suitable for the installation of radiant heat bamboo flooring. **A stove or any other item that can affect the temperature of the ground cannot be used at the job site.**

During the first three days after complete installation, the concrete slab temperature should be maintained at around 65 degrees Fahrenheit. After that, the temperature can be set warmer, by 1.5 degrees Fahrenheit each day, with a maximum temperature of 85 degrees Fahrenheit. The temperature of the subfloor must not be higher than 85 degrees Fahrenheit and the radiant heat system liquid must not reach more than 112 degrees Fahrenheit during the life of your floor. When turning off the radiant heat system, it must cool by a temperature of 1.5 degrees Fahrenheit per day. Never turn your radiant system off suddenly. Slight changing of color is expected for bamboo flooring installed over a radiant heating system.

Finishing the Job

- Remove expansion spacers and install base and/or quarter round moldings to cover the expansion space.
- Install any transition pieces that may be needed (reducer, t-moldings, etc.).
- Do not allow foot traffic or heavy furniture on floor for 24 hours or as adhesive manufacturer requires.
- Vacuum your floor to remove any dirt or debris.

- We will not accept responsibility for flooring damaged on installation. All installation procedures should follow National Wood Flooring Association (NWFA) recommendations. For further information, contact NWFA at 800.422.4556.

Cleaning and Maintenance

The maintenance program for Ambient bamboo flooring is designed to be user friendly. The latest advances in finish technology are used in our manufacturing process to help aid product performance and maintenance. The use of products like wax, water or oil soaps should be avoided.

After your floor has been installed, floor protectors should be placed under the legs of chairs and tables. Doors leading outside should have floor mats placed both inside and out. Your floor should be cleaned weekly with the use of a suction vacuum, not abrasive rotary brush vacuums, to remove grit and debris from the surface of the flooring. Higher traffic areas may require more frequent cleaning to keep the floor free of grit and abrasive debris that can damage the floor and finish.

Professional cleaning products such as Ambient Bamboo Hardwood Floor Cleaner may be used for maintenance and daily cleaning. For small stains and grit marks, you can use a damp cloth to rub them off followed by a dry cloth. For removing tough stains such as paint, adhesive residue, and gum, you can use more heavy-duty Bona products. We strongly suggest testing your desired cleaning product on a leftover flooring plank prior to cleaning your actual floor, to ensure that product does not damage the factory finish.

	Glue	Cleat	Staple	Float
Classic	✓	✓	✓	✗
Strand Woven	✓	✓	✗	✗
Hand Scraped Click-Lock	✗	✗	✗	✓
Click-Lock Strand Engineered	✗	✗	✗	✓