Solid Woven Flooring Installation Instructions

ECOTIMBER RECOMMENDS USING THE SERVICES OF A PROFESSIONAL HARDWOOD FLOORING INSTALLER. READ THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING INSTALLATION. IN ADDITION TO THESE INSTRUCTIONS, WE RECOMMEND THAT THE INSTALLER FOLLOW ALL INSTALLATION GUIDELINES SET FORTH BY THE NATIONAL WOOD FLOORING ASSOCIATION (NWFA.ORG). WHERE THESE INSTRUCTIONS DIFFER FROM NWFA GUIDELINES, THIS DOCUMENT TAKES PRECEDENCE. THESE INSTALLATION INSTRUCTIONS DO NOT APPLY TO PRODUCTS OTHER THAN SOLID WOVEN BAMBOO FLOORING.

OWNER/INSTALLER RESPONSIBILITY

The owner/Installer assumes all responsibility for final inspection of product quality. Inspection of all flooring should be done prior to installation. If material is not acceptable, contact the seller immediately. Manufacturer cannot accept responsibility for flooring installed with visible defects. Prior to installation, the owner/installer must determine that the job-site environment and the sub-surfaces involved meet or exceed all applicable standards. The manufacturer declines any responsibility for product failure resulting, or associated with, subfloor and substrates or job-site environmental deficiencies.

TOOLS AND ACCESSORIES

1) Tape Measure
2) Pencil
3) 3M® 2080 Blue Tape
4) Tapping Block
5) Hand, Table, Circular, or Band Saw
6) Pry Bar or Pull bar
7) Hammer
8) Spacing Wedges
9) Rubber Mallet
10) Safety Equipment (Goggles and Mask)
11) Carpenter's Square
12) Utility Knife
13) Chalk Line
14) Calibrated Moisture Meter

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For Glue-Down installation, you'll also need:

1) Flooring adhesive - urethane based such as Bostik® Best Damp and Dry Towels
2) Trowel, per flooring adhesive manufacturer's recommendations Adhesive remover

For Nail-Down installation, you will also need:

1) Pneumatic nailer appropriate for 9/16" flooring Air Compressor 15 lb Asphalt Paper (roofing felt)
2) 1-1/4" or 1-1/2" 18-20 gauge cleats or staples (staples should have ¼" wide crown) Nail Punch

PREPARATION

Job Site

Your flooring should be one of the last items installed in any new construction or remodel project. All work involving water or moisture should be completed before flooring installation. Permanent HVAC should be on and operational and maintained between 60-75° F & relative humidity should be 30%-60% for min 14 days prior to delivery, as well as during and after installation.

Storage and Handling

Store flooring in the rooms where they are to be installed, with both ends of the boxes completely opened, to allow flooring to acclimate. Do not store directly on concrete or near outside walls. **Flooring should be acclimated until its moisture content is within 2% of the moisture content of the subfloor. Acclimation will progress more slowly with Woven Bamboo than with hardwoods, due to its extreme density and resin content. In very dry or very humid climates, proper acclimation may require several weeks.** Non-intrusive surface meters tend to give more accurate readings than pin-type meters. All moisture meters must be calibrated and adjusted to specific settings for different species. For Woven Bamboo, use the setting for Ipe (Brazilian Walnut). Failure to acclimate properly may result in shrinkage or expansion and cupping/buckling.

Sub Floor

Acceptable subfloor types:

1) CDX plywood-at least 5/8" thick for joist spacing up to 16", min 3/4" thick for joist spacing greater than 16" on center (19.2" max)
2) Underlayment grade particleboard (minimum 40 lb. density) – glue-down only
3) OSB – at least 3/4" thick, PS 2-92 rated or PS 1-95 rated
4) Concrete slab – glue-down only

5) Existing wood flooring – must be smooth, level, well-adhered and unfinished (if gluing new flooring)
6) Resilient tile and sheet vinyl – glue-down only; tile/vinyl must be new and non-urethane coated
7) Lightweight concrete (gypcrete) coated with latex primer - glue-down only (NOTE: EcoTimber provides no guarantee that lightweight concrete or gypcrete will remain structurally sound during the life of the floor. Separation of the flooring from the subfloor caused by deterioration or fracturing of the substrate will not be considered a product failure.)

All subfloors must be dry and remain dry year-round, structurally sound, clean and level within 3/16" per 10' radius. Moisture content of wood sub floors must not exceed 12%, wood flooring moisture content must be within 2% of wood subfloor moisture content, and concrete must not exceed 3 lbs. per Calcium Chloride Test (test method ASTM 1869-89), or 2 lbs. when installing over radiant heat. For glue down installations, subfloor must be free of wax, grease, paint, old adhesives, etc., which can be removed by sanding. Do not sand existing vinyl floors, as they may contain asbestos. Concrete subfloors must be fully cured, at least 60 days old, and should have min 6-mil polyfilm between concrete and ground. If gluing down on concrete that is on or below grade, even if the Calcium Chloride test results are under 3 lbs., we highly recommended the use of a concrete sealer. Resilient tile and sheet vinyl must be well bonded to sub floor, in good condition, clean and level.

Radiant Heat

When installing Solid Woven Bamboo over radiant heat, the glue-down installation method is recommended, but nail-down installations are warranted provided that all of these instructions are carefully followed. **This flooring is not warranted for use over radiant heat systems heated by electric elements.** Only hydronic systems are approved. Hydronic systems must include in-floor temperature sensors and an outdoor thermostat that allows the system to adjust the water temperature according to anticipated heat loss. Flooring installed in multi-unit projects where the water temperature is not regulated separately in each unit is not warranted. **The moisture content for concrete subfloors must not exceed 2.0 lbs. per 1000 square feet per ASTM 1869-89 (Calcium Chloride Test), and the moisture content for wood subfloors must not exceed 12%.** If moisture levels exceed these limits, do not install the flooring. **The surface temperature of the subfloor must never exceed 82°F in any location. The temperature setting must always remain within 15°F of normal operating level, and should never be turned completely off.** Excessive heat, rapid heating, and/or failure to maintain humidity levels between 30% and 60% are likely to cause cracking, cupping and other forms of floor failure. **Seasonal gapping and surface checking (cracking), particularly at the ends of planks, should be expected in installations over radiant heat and do not constitute a product failure.** All concrete must be allowed to properly cure and dry for a minimum of 4 weeks prior to the operation of the radiant heat system. The system should then be operated at at least 2/3 maximum output for a minimum of 2 weeks prior to installation of flooring to further allow moisture from the subfloor to dissipate and reach equilibrium. This procedure must be followed regardless of the time of year. Three (3) days prior to flooring installation, reduce thermostat to 65°F. In glue-down installations, the system should be turned off 24 hours prior to and during installation to

prevent premature curing of the adhesive. As always, relative humidity of the jobsite must be maintained between 30% and 60%. **Use of a humidification/dehumidification system may be required to maintain the proper humidity levels, particularly over radiant heat.** Failure to maintain proper humidity levels will void all warranties. Beginning 48 hours after installation, slowly raise the temperature of the heating system to its preferred operating level over a period of 5 days. Please refer to the Radiant Panel Association for more information.

INSTALLATION

Make sure subfloor is tested for moisture content first and is properly prepared.

Since Bamboo, like wood, expands with any increase in moisture content, always leave at least a ½" expansion space between flooring and all walls and any other permanent vertical objects, (such as pipes and cabinets). This space will be covered up once you reapply base moldings around the room. Use wood or plastic spacing wedges along all walls and other fixed objects during installation to maintain this ½" expansion space.

No area of connected flooring can span greater than 25 feet in width or 50 feet in length without an expansion gap. For larger spans, install T-moldings or other transition pieces that allow the flooring to expand and contract.

Measure the room carefully in order to calculate the width of the last row. If the last row is less than 1.5" wide, cut 1.5" off the width of the first row to ensure the stability of the floor.

Work from several open boxes of flooring and “dry lay” a portion of the floor before permanently installing it. This will allow you to select the varying grains & colors and to arrange them in a harmonious pattern. The actual floor may differ in grain and color from the samples used in selecting the product. This is not a product defect. It is the installers’ responsibility to work with the end user to determine the expectations of what the actual finished floor will look like.

All Methods

1. Remove any existing base, shoe mold or doorway thresholds.
2. Saw off the bottoms of doorjambs and trim so that the flooring can be slipped under. To do this, use a scrap piece of flooring as a guide and with a handsaw cut off the jamb and trim.
3. Install moisture barrier system and/or underlayment if necessary, determined by the grade and type of subfloor and the installation method used.
4. Establish a straight working line by choosing a starting wall and measuring out from the wall at both ends, the width of a panel (including the tongue) plus ½", and snapping a chalk line.
5. Lay out the first row end to end with the grove toward the wall. Align the tongue of the panels with your straight working line. Remember to allow for ½" expansion spaces at both ends when measuring and cutting the last piece in a row. You may need to scribe cut the first row of planks to match the wall and maintain your ½" expansion space, as

most walls are not straight. Take the time to measure to ensure your expansion space is adequate and equal throughout the whole length of the wall and use spacing wedges along all walls to help maintain expansion space.

6. Once you are satisfied with your alignment and expansion space, secure the first row by face nailing and/or gluing. Face-nailing will leave nail holes that must be filled with putty. Make sure the starting row is straight and drawn tight. To draw planks together, always use a tapping block or pull bar, as tapping the flooring itself will result in edge damage. **Never apply pressure to the groove edge of the flooring – only use the tapping block against the tongue.** After gluing with one of the approved adhesives (or Liquid Nails® LN-901), set weight on top of them and allow them to set securely before installing additional rows.
7. Start remaining rows with partial planks that are at least 8" long. Stagger end joints from row to row by at least 8" for maximum stability and a professional look. Avoid 'H' patterns, where planks just two rows away from each other end in the same location, by starting each row with a plank cut to a random length.
8. To install the last row you will need to measure the space you have left between the wall and the edge of the new floor. Subtract 1/2" for expansion and use this number for the width to cut your planks. Install and secure in the same manner as you did the first row, scribe cutting to match the wall and maintain expansion space.

Glue down installation

1) Make sure subfloor is tested for moisture content first and is properly prepared.
2) On concrete subfloors that are on or below grade (ground level), always assume the worst. Even if they measure dry, we recommend taking one of the following two installation steps to ensure a trouble-free installation:
3) Method #1: Install a sheet vinyl floor first and then glue down your floor over the sheet vinyl. Follow the vinyl manufacturer's installation recommendations.
4) Method #2: Taylor® and Bostik® offer Moisture Barrier Systems on which they provide a warranty that moisture will not pass through and damage your flooring. Follow manufacturer's recommendations for application/installation.
5) *Remember a concrete slab on/below grade that measures dry today may become moist in the future due to rising groundwater. Installing a moisture barrier now may be viewed as an insurance policy against concrete becoming wet in the future; this will lead to subsequent floor failure. The manufacturer is not responsible for related moisture issues.*
6) Carefully review the adhesive manufacturer's instructions for proper trowel size, minimum temperature, adhesive set time and open times before beginning installation of flooring. EcoTimber does not directly warrant the performance of adhesive or sealer products.
7) Spread adhesive and allow to setup sufficiently per adhesive manufacturer's instructions before securing the floor.

8) Use tapping block or pull bar to fit planks together, but be careful not to let installed floor move on wet adhesive while you are working.
9) After the first row is set securely, continue to spread adhesive and lay flooring section by section until installation is complete.
10) Use a damp cloth to **IMMEDIATELY REMOVE ANY ADHESIVE FROM THE FLOORING SURFACE**. If adhesive cannot be completely removed with a damp cloth, use the manufacturer's recommended adhesive remover. Never let flooring adhesive dry completely on the finished surface. The manufacturer is not responsible for finish damage that might be caused by adhesive that has been allowed to dry completely.
11) Use 3M® 2080 Blue Tape to hold any pieces which might have side bow and need to be held straight & tight until the adhesive sets. Do not allow tape to remain on floor longer than 30 minutes and remove tape prior to cleaning floor with a cleaner or solvent. Do not apply tape to flooring that has been previously wiped with a solvent.
12) Within the adhesive working time, walk each section of flooring in order to make sure it is well bonded to the subfloor. Flooring planks on the perimeter of the room may require weight on them until the adhesive cures enough to hold them down.

Staple / Nail Down Installation

1) Make sure subfloor is tested for moisture content first and is properly prepared.
2) Place a 15-lb. felt paper or equivalent, meeting ASTM D4869 standards, over the entire subfloor, following the manufacturer's instructions.
3) Since it can be difficult getting the nail gun close to the wall, it may be necessary to face-nail and/or glue down the first few rows.
4) Use a flooring nailer that is appropriate for 9/16" thick flooring and, depending on the model of the nailer, 1-1/4" or 1-1/2" 18-20 gauge cleats or staples.
5) Lay by using floor nailer to blind-nail top inside edge of tongue at a 45 degree angle.
6) Test to make sure that nailing will not cause dimpling (localized raised edges) in the finished floor. **Note:** be sure to look at the face of the installed flooring at a low angle from a distance to see if dimpling is occurring, as it is hard to see when directly above the floor. If you see dimpling, STOP and adjust the nailer shoe, angle/place of nail entry or air pressure until test planks confirm that dimpling is no longer occurring. The manufacturer is not responsible for replacing material that has been installed with dimples.
7) Nail each board every 6-8" and 3-4" from each end.
8) Remember to stagger end joints from row to row at least 8" apart and use a tapping block or pull bar to fit boards together.
9) Periodically check (looking from a low angle) to make sure that the nailer is still not causing dimpling.
10) It may be necessary to face-nail and or glue down the flooring in doorways or tight areas where the nailer can't fit.
11) The last rows may need to be face-nailed or glued in the same manner as the first rows.

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After Installation

Remove expansion spacers and install or reinstall base and/or quarter round moldings to cover the expansion space by nailing to the wall, not the floor. Install any transition pieces that may be needed (reducers, T-moldings, nosing, etc.). If using the glue-down installation method, do not allow foot traffic or heavy furniture on floor for 24 hours. Buff the floor with lamb's wool pads in order to remove any loose splinters, residues, footprints, etc. and dust mop or vacuum the floor thoroughly to remove any dirt or debris.

CARE AND MAINTENANCE

EcoTimber bamboo flooring is durable and hard wearing. Taking care to protect your floor from potentially damaging elements will ensure that it continues to look its best and provides decades of use. Below are some care tips to help you maintain the beauty and longevity of your floor.

1) Regularly dust mop, sweep with a soft bristle broom, or vacuum with a soft accessory to keep your bamboo floor clean from dust, dirt or grit.
2) Remove spills and dirt promptly. A soft cloth damp with water may be used to wipe up foodstuffs and other spills, provided the area is dried immediately.
3) Heel or scuff marks and stubborn stains may be removed by lightly rubbing with a cloth and a wood floor cleaner.
4) It is recommended to remove high-heel shoes prior to walking on bamboo flooring. Alternatively, be sure to clean shoes well. Gravel, rocks and debris can get stuck in the bottom of shoes and scratch the finish.
5) Use area rugs on high traffic pathways. Only use colorfast and non-scratch area rugs on your bamboo floor. Rubber backed rugs should be avoided. Use mats in the kitchen, bathroom and laundry room to protect against spills.
6) Install floor protectors under all furniture legs.

What not to do

1) Do not allow floor cleaner or any other liquid to remain longstanding on your bamboo floor.
2) Do not let sand, dirt or grit build up.
3) Do not use a wet mop or sponge to clean the floor - excessive amounts of water will cause your floor to swell and cup.
4) Never wax your bamboo floor.
5) Do not use steel wool or other abrasive scouring pads.
6) Do not use oil soap, scouring powder, abrasive cleansers or harsh detergents to clean your bamboo floor.
7) As with all natural products, exposure to the sun and ultra-violet rays can cause bamboo to become discolored. Remember, spending a little time looking after your bamboo flooring will ensure that it continues to look good and lasts for many years.

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