



Bamboo Prefinished Engineered Installation Instructions

Read these instructions thoroughly before beginning installation. In addition to these instructions, we recommend that the installer follow all installation guidelines as set forth by the national wood flooring association.

pre-installation jobsite requirements

ecofinishes® cannot be held responsible for site conditions.

Carefully examine the flooring prior to installation for grade, color, finish and quality. Ensure adequate lighting for proper inspection. If flooring is not acceptable, contact your supplier immediately and arrange for replacement. ecofinishes® cannot accept responsibility for flooring installed with visible defects. Prior to installation of any flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. ecofinishes® is not responsible for flooring failure resulting from unsatisfactory jobsite and/or subfloor conditions.

Hardwood 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. Water and wood do not mix. Installing flooring onto a wet subfloor will most likely cause cupping, tip & edge raising, telegraphing of core and subsequent gapping.

Room temperature and humidity of installation area should be consistent with normal, year-round living conditions for at least one week before installation of flooring. Room temperature of 65-75° F and a humidity range of 30-50% is recommended. Humidity levels below 30% will most likely cause movement in the flooring, including gapping between pieces and possible cupping and checking in the face.

Store the flooring in the **unopened** boxes at installation area for 24 – 72 hours before installation to allow flooring to adjust to room temperature. Do not store the boxes of flooring directly on concrete. These engineered Bamboo floors **do not** need any moisture equalization prior to installation and should be installed from just-opened boxes. **do not open** more than a few boxes in advance of installation and only the number of boxes that will be installed within the next few hours. Only open enough boxes to ensure a good mix of lengths and color.

pre-installation subfloor requirements

All Subfloors must be:

- Dry and will remain dry: Subfloor must remain dry year-round. Moisture content of wood sub floors must not exceed 11%. Concrete must not exceed 3 lbs. per Calcium Chloride Test.
- Structurally sound.
- Clean: Thoroughly swept and free of all debris (If being glued down, subfloor must be free of wax, grease, paint, sealers, & old adhesives etc., which can be removed by sanding).

level:

Flat to 3/16" per 10-foot radius

Wood subfloors must be dry and well secured. Nail or screw every 6" along joists to avoid squeaking. If not level, sand down high spots and fill low spots with an underlayment patch.

Concrete subfloors must be fully cured, at least 60 days old, and should have minimum 6-mil polyfilm between concrete and ground. Subfloor should be flat and level within 3/16" per 10' radius. If necessary grind high spots down and level low spots with Ardex® K-15 Portland Leveling Compound.

All concrete should be tested for moisture using a Calcium Chloride Test, and the result must not exceed 3 lbs. Ceramic Tile, resilient tile and sheet vinyl must be well-bonded to subfloor, in good condition, clean and level. Do not sand existing vinyl floors, as they may contain asbestos.

If gluing down on concrete which is on or below grade, it is highly recommended to use a moisture cure urethane adhesive. A moisture test must be performed to insure that the slab is dry.

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. ecofinishes® is not responsible for site related moisture issues.

For additional protection, you may want to consider applying the Bostik® or Franklin® Moisture Barrier Systems, which are warranted by their manufacturers.

installation tools:

- For all installation methods:
- Tape measure
- Tapping block (trimmed piece of flooring)
- Pencil
- Pry bar or pull bar
- Chalk line
- Wood or plastic spacers (3/8")
- Crosscut power saw
- 3M® Blue Tape

for glue-down installation method (recommended), you'll also need:

Flooring adhesive: ecofinishes® 30GU Urethane Adhesive or Bostik® Best (Note: Use only urethane adhesives – **do not use water based mastics** as they will cause this floor to fail)
Trowel per flooring adhesive manufacturer's recommendations.

for nail-down installation, you will also need:

Bostich® MIIIFS - Industrial Flooring Stapler – air stapler/nailer with 9/16" Naildown adapter,
Bostich® ½"x 1 ½ " staples for the Floor Runner stapler
Air compressor

for floating installation, you'll also need:

Natural Cork CorkShield or equivalent underlayment
6-mil polyfilm (if installing on or below grade and not using Natural Cork CorkShield)
Eurobond® D3 T&G Adhesive or Franklin® Titebond 2 PVAC glue
Duct tape

acceptable subfloor types:

- Plywood (at least ½" thick)
- Underlayment grade particleboard – floating/glue-down only)
- OSB (at least ¾" thick)
- Concrete slab (floating/glue-down only)
- Existing wood floor
- Ceramic tile (floating/glue-down only)
- Resilient tile & sheet vinyl (floating/glue-down only)

starting your installation:

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

Since wood and Bamboo expand with any increase in moisture content, always leave at least a 3/8" 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 spacers during installation to maintain this 3/8" expansion space. No area of connected flooring can span greater than 40 feet in width or 120 feet in length. For larger spans, install T-moldings or other transition pieces that allow the flooring to expand and contract.

Work from several open boxes of flooring and "dry lay" the floor before permanently laying the floor, but never open more than a few boxes in advance. This will allow you to select the varying grains & colors and to arrange them in a harmonious pattern. It also allows you the opportunity to select out very dark/light pieces for use in hidden areas in order to create a more uniform floor. Remember, it is the installers' responsibility to determine the expectations of what the finished floor will look like with the end user first and then to cull out pieces that do not meet those expectations.

Begin installation next to an outside wall. This is usually the straightest and best reference for establishing a straight working line. Establish this line by measuring an equal distance from the wall at both ends and snapping a chalk line. The distance you measure from the wall should be the width of a plank plus about 3/8" for expansion space. You may need to scribe cut the first row of planks to match the wall in order to make a straight working line if the wall is out of straight.

You may want to dry lay a few rows, (no glue or nails), before starting installation to confirm your layout decision and working line. When laying flooring, stagger end joints from row to row by at least 8". When cutting the last plank in a row to fit, you can use the cut-off end to begin the next row. If cut-off end is 8" in length or less, discard it and instead cut a new plank at a random length and use it to start the next row. Always begin each row from the same side of the room.

To draw planks together, always use a tapping block (a short piece of flooring), as tapping the flooring itself will result in edge damage. For best results, flip the tapping block upside down and use the groove edge to tap the tongue edge of the plank being installed. Fit end joints tightly together before tapping long edges together. When near a wall, you can use a pry bar to pry close the side and end joints. Take care not to damage edge of flooring. For glue down & floating applications, use 3M® Blue Tape to hold any pieces which might have side bow and need to be held straight & tight until the adhesive sets up.

glue down installation – recommended:

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

On concrete subfloors, which are on or below grade (ground level), always assume the worst and even if they measure dry, we now recommend taking one of the following two installation steps to ensure a trouble-free installation. The cost of the precaution is little when compared to the cost of ripping out and replacing a floor that has failed due to high moisture from the subfloor.

Follow adhesive manufacturer's instructions for proper trowel size, minimum temperature, adhesive set time and open times before beginning installation of flooring.

Once the spread adhesive has setup sufficiently per adhesive manufacturer's instructions, lay the first row of flooring with groove facing the wall, and continue laying flooring. Always check your working lines to be sure the floor is still aligned. Use tapping block to fit planks together, but be careful not to let installed floor move on the wet adhesive while you are working. Always leave at least a 3/8" 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. Remember to stagger end joints from row to row at least 8" apart.

When first section is finished, continue to spread adhesive and lay flooring section by section until installation is complete. Use a damp cloth to IMMEDIATELY REMOVE ANY ADHESIVE that gets on 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.

Walk each section of flooring in order to make sure it is well bonded to the subfloor with the adhesive working time. Flooring planks on the perimeter of the room may require weight on them until adhesive cures enough to hold them down.

staple/nail down installation:

Make sure subfloor is tested for moisture content first and is properly prepared. Use Bostich® MIIIFS Industrial Flooring Stapler which is an air stapler/nailer with 9/16" nail-down adapter or a stapler/nailer of your choice after testing to make sure that stapling/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 dimpling does occur, STOP and adjust the stapler/nailer shoe and angle/place of staple entry in order to avoid it. ecofinishes® is not responsible for dimpling.

For the first and second starting rows: lay first plank inside chalk line with grooved edge toward wall. Install entire first row in the same manner. Always leave at least a 3/8" 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. In order to affix the first rows, as it is difficult to get the nail gun in place next to the wall, you may wish to set these rows in mastic and glue them down rather than face nailing them and leaving unsightly nail holes which must be filled with putty to match the wood floor.

After gluing down these starting rows with a urethane adhesive, (or Liquid Nails® LN-901 adhesive), set weight on top of these rows and allow them to set before commencing stapling/nailing the additional rows, as nailing the adjacent rows may cause the starting rows to subsequently move. Make sure the starting rows are straight and drawn tight.

Subsequent rows: Lay by using floor nailer/stapler to blind-nail top inside edge of tongue at a 45 degree angle. Nail each board every 8" and within 2" of each end. Remember to stagger end joints from row to row at least 8" apart and use a tapping block to fit boards together. It may be necessary to face-nail in doorways or tight areas where the nailer/stapler can't fit, (or glue down in these areas and weight them while the mastic sets). The last two rows will need to be face-nailed, (or glued down), in the same manner as the first two rows.

Always make sure to visually check the installed floor as you go to ensure that the stapling/nailing is not causing dimpling on the face. (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 dimpling does occur, STOP and adjust the stapler/nailer shoe and angle/place of staple entry in order to avoid it. ecofinishes® is not responsible for dimpling.

floating installation:

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

When using ecofinishes® CorkShield underlayment, no additional moisture barrier is necessary. If using an alternative 1/8" thick pad and installing below or on grade, polyfilm is required.

Laying polyfilm: lay 6-mil polyfilm with seams overlapped 8". Fasten seams every 18-24" with duct tape. Run the outside edges of film up perimeter of each wall 4". Trim after flooring installation is complete.

Laying pad: lay ecofinishes® CorkShield or equivalent underlayment by butting edges, not overlapping. Tape full length of the seam with duct tape. Leave 1/2" space between pad and all walls and permanent vertical fixtures.

Installing the floor: start first row with groove toward wall. Glue end joints of first row by applying a small but continuous bead of Eurobond® D3 T&G Adhesive or Franklin® Titebond 2 PVAC glue to bottom side of the groove. Always leave at least a 3/8" 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. Lay subsequent rows of flooring by applying glue to side and end joints and fitting planks together with a tapping block. Remember to stagger end joints from row to row at least 8" apart.

Clean up any adhesive that is on the face of the floor by using a damp rag – DO NOT allow adhesive to dry on the flooring face as it is difficult to remove without damaging the finish.

after installation:

Flooring should be one of the last items installed in a project. In order to protect the floors while other trades are finishing their work prior to final cleanup and turnover to the owner, use rosin paper and only use 3M® Blue Tape to hold the rosin paper to the floor (other blue tapes may damage the finish). Clean the floor thoroughly before laying the rosin paper to ensure that no debris is trapped underneath. DO NOT USE plastic film or other non-breathing coverings as this can cause the floor to become damaged from humidity buildups.

Remove expansion spacers and reinstall base and/or quarter round moldings to cover moldings to cover the expansion space.

Dust mop or vacuum your floor to remove any dirt or debris.

It is suggested that you buff the floor with lamb's wool pads in order to remove any loose splinters, residues, footprints, etc.

Install any transition pieces that may be needed (reducers, T-moldings, nosing, etc.).

If using glue-down or floating installation methods, do not allow foot traffic or heavy furniture on floor for 24 hours.

Responsibility for the suitability of ecofinishes® bamboo for each individual installation cannot be assumed by ecofinishes®, since ecofinishes®, has no influence on the installer's proper application. Should an individual plank be doubtful as to appearance or dimension the installer should not use this piece. Any defect must be reported directly to ecofinishes® or to a ecofinishes® distributor/dealer immediately. ecofinishes® will send a replacement in a timely manner.

note:

ecofinishes® makes no warranty or guarantee of the quality of work performed by a selected installer. ecofinishes® disclaims all liability for imperfect installation of its product. ecofinishes® bamboo pre-finished flooring is best installed over a wood subfloor using staples/brads or glue. Gluing pre-finished ecofinishes® bamboo directly to a concrete subfloor may be done on or above grade. Do not install ecofinishes® bamboo below grade. ecofinishes® bamboo may be applied over in-floor radiant heating systems. Recommended equipment is the Stanley Bostitch Flooring Nailer. Proper use of this equipment will render good results.

acclimation:

Solid ecofinishes® bamboo flooring must be allowed to acclimate on-site a minimum of 72 hours in advance of installation. Open each box and remove shrink-wrap completely. During the acclimation period it is important that temperature and humidity levels be maintained in accordance with those expected to exist after installation. Optimum installation conditions are 70 degrees Fahrenheit at 30 - 50% humidity.

substrate preparation:

Underlayment-grade plywood and man-made board substrates must be clean, level, dry, and free of contaminants. Optimum results will be achieved through use of 3/4" CDX plywood substrate. Fill any low spots with appropriate filler and sand any high spots. For buildings with a raised foundation, install ground cover of 6 mil polyethylene sheets over the earth in crawl space.

Concrete Substrate must be on or above grade. Concrete is required to be sound, smooth, level and flat with a maximum variation of 1/8" in 10'. Fill any low spots with appropriate filler and scrape any high spots. Subfloor must be properly cured and tested for moisture content. Slab must be properly cured. Flooring must not be installed if vapor pressure exceeds 3 lbs. per 1000 square feet in 24 hours using calcium chloride test method.

installation:

Flooring should be square with the space, running parallel to longest room dimension. A 1/2" expansion space must be left around entire perimeter. It is important that the tongue & groove of each plank fit together tightly at all seams and butt joints. Starter row must be held firmly in place using either nails or wedging. Use of proper equipment will improve overall quality of installation.

Nail Down Method: Once starter rows are secure, additional rows should be blind nailed using a professional quality flooring nail gun. Excessive splitting or cracking of plank tongue can result from use of improper equipment or incorrect equipment settings. Holding nail gun at a 45-50 degree angle to face of plank, insert nails directly above tongue. Beginning a minimum of 2 inch from end of first plank, space nails at 8 inch intervals. To prevent splitting, nails should not be placed closer than 2 inch from either end of plank. Two inch long flooring nails (cleats), or 2-inch, 15 gauge flooring staples with a 1/2 inch crown are recommended.

Glue Down Method: Room, flooring material and containers of adhesive should be conditioned at normal room temperature for 72 hours before beginning installation. Use only manufacturer's recommended adhesive. Apply adhesive to substrate with a 1/4" x 3/16" x 5/16" V notch trowel. Immediately and firmly place flooring onto "wet" adhesive.

note:

It is important not to allow glue onto plank surface. If glue does spill or leak onto surface of flooring, please consult adhesive manufacturer for appropriate corrective action.

In-floor Radiant Heat: Regardless of season, radiant heat system should be turned on and remain on for five days in advance of installation. A radiant floor should not produce surface temperatures over 85 degrees Fahrenheit. Continue to operate radiant heat system after installation.

This type of installation requires a specific construction of the plywood subfloor and the installer for such must be familiar with the NWFA recommendations. NWFA

(National Wood Flooring Association) can be reached at:

800-422-4556 U.S, or
800-848-8824 Canada.

Engineered bamboo flooring is better suited for installation over floors with radiant heat.

Additional information can be obtained at:

www.woodfloors.org
www.hardwoodcouncil.com
www.nofma.org

note:

Any wood flooring, to include bamboo, will expand and contract in response to changes in temperature and humidity. There should be no more than a 2% maximum difference in moisture content between the subfloor and surface flooring material. The amount of movement varies dependant upon temperature, dimensional stability of the materials involved, and moisture content of both the surface flooring and subfloor. Visible gaps at seams and joints will vary seasonally.