

4100 4th Avenue South Seattle, WA 98134

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BAMBOO HARDWOODS® FLOOR INSTALLATION INSTRUCTIONS

INSTALLER/OWNER RESPONSIBILITY

Bamboo Hardwoods® strives to offer its customers high quality hardwood flooring. Please carefully read this installation guide to ensure satisfactory results from your Bamboo Hardwoods floor.

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 seller immediately and arrange for replacement. Bamboo Hardwoods® cannot accept responsibility for installation of flooring with visible defects.

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

When purchasing Bamboo Hardwoods® flooring, add 5%-15% to actual square footage needed for cutting allowance.

Bamboo Hardwoods® wood flooring may not be appropriate for full bathroom installations because of moisture associated with such locations.

JOBSITE & PRE-INSTALLATION

Hardwood flooring should be one of the last items installed for any new construction or remodel project. All work involving water or moisture should be completed before hardwood flooring installation. Room temperature and humidity of installation area should be consistent with normal, year-round living conditions for at least a week before installation of wood flooring. Room temperature of 60-80°F and humidity range of 30-50% is recommended.

Store Bamboo Hardwoods® flooring at the installation area before installation to allow the flooring to adjust to room temperature and humidity. Do not store directly on concrete or near outside walls.

Do not install the flooring until the moisture content of the subfloor, molding, or some other wood in room where the flooring will be installed equals the moisture content of the flooring. Bamboo flooring, like any other wood flooring, will expand and contract based on moisture content. The more moisture in the flooring, the more it will expand. The less moisture, the more it will contract. Therefore, the moisture content of the flooring needs to reach equilibrium with the moisture content of the subfloor and the rest of the building before installation.

This equalization process is called acclimatization. If you do not allow the flooring sufficient time to acclimatize, and the moisture content of the flooring exceeds that of the subfloor, the flooring will continue to contract after installation and gaps may develop between the flooring. Likewise, if the moisture content of the flooring is less than that of the subfloor, the flooring may expand and cupping may develop.

The length of time it takes to acclimatize depends entirely on the circumstances. Bamboo flooring delivered from the warehouse in Seattle to local jobsites in other wet marine climates in the summer may not need much time to acclimatize at all. However, bamboo flooring delivered from the warehouse in Seattle to local jobsites in the winter may need more time to acclimatize because homes in the winter tend to be drier than the warehouse. (The homes are often heated with forced air, which dries them out.)

Bamboo flooring delivered from the warehouse in Seattle to the dry climates of the inter-mountain west may need even more time, possibly months, to properly acclimatize. It all depends on the relative humidity of the warehouse compared to the jobsite.

General Installation Tools

- Tape Measure
- Pencil
- Chalk Line
- Hand Saw or Power Saw
- Tapping block
- Crow Bar or Pull Bar
- Wood or Plastic Spacers (1/4")
- Hammer

For nail-down installation:

- Cleat nailer
- 1-1/4" cleats to 1-1/2" cleats (Staples will work also), 15.5guage

For floating installation, you will also need:

- 6mm poly-film or RB Silent Tread underlayment
- PVAC glue, poly tape or duct tape

For glue-down installation, you'll also need:

- Approved flooring adhesive*
- Adhesive trowel (as recommended by adhesive)
- *Approved adhesives: Bostik's® Best.



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Installation requirements

Quality of your floor installation is dependent on quality and preparation of the subfloor. Please read the following information carefully.

Acceptable subfloor types:

- Plywood (at least 1/2") (nail, float, or glue)
- OSB (at least 3/4") (float or glue only)
- Existing Wood Floor (float or glue only)
- Resilient Tile and Sheet Vinyl

(float or glue only)

- Underlayment-grade particleboard (float or glue only)
- · Concrete slabs (on or above grade, for below grade float install only)

(float or glue only)

Ceramic tile

(float or glue only)

Subfloor must be:

- Structurally sound
- · Clean: Thoroughly swept and free of all debris. Free of wax, grease, paint, sealers, old adhesives and other substances.
- Level: Flat to 3/16" per 10' radius
- Dry and will remain dry: Subfloor must remain dry yearround. Moisture content of subfloor must not exceed 13% for most surfaces, and must not exceed 2.5% for concrete. This can be tested with commercial moisture meter.

Wood Subfloor

ALLOWABLE INSTALLATION TYPE: nail, float or glue. The floor 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 Subfloor

ALLOWABLE INSTALLATION TYPE: float or glue.

Concrete must be fully cured (at least 60 days old) and should have minimum 6mm poly-film between concrete and ground. Do not install on concrete unless it stays dry year round.

All concrete should be treated for moisture. If moisture meter is unavailable, tape a 2'x2' section of clear plastic to concrete slab, forming an airtight seal. If condensation or discoloration appears on plastic after 24-48 hours, moisture content is too high for wood flooring installation. Please contact a professional hardwood flooring installer to improve subfloor to an acceptable level.

Ceramic Tile, Resilient Tile and Sheet Vinyl

ALLOWABLE INSTALLATION TYPE: float or glue.

Tile must be well bonded to subfloor, in good condition, clean and level. Caution: Do not sand existing vinyl floors as they may contain asbestos.

Radiant Heat

Use only floating or glue installation for radiant heat. Strand Woven floors may not be floated over any radiant heating system! Subfloor should never exceed 85°F; check with manufacturers suggested guidelines for correct water temperature inside heating pipes.

Switch off heating unit one or two days before flooring installation. Room temperature should not vary more than 15°F year-round. Follow floating installation instructions for below grade.

FLOOR IDENTIFICATION



PREPARING FOR INSTALLATION

Door casings should be undercut or notched out so flooring will fit underneath. This can be done easily by placing a piece of flooring on the subfloor as a height guide for your saw. Base moldings and door thresholds should be removed and replaced after flooring installation. Since wood expands with any increase in moisture content, always leave at least a 1/4" expansion space between flooring and all walls and vertical objects (such as pipes and cabinets).

This will be covered up once you reapply base moldings around the room. Use wood or plastic spacers during installation to maintain this expansion space. When laying flooring, stagger end joints from row to row by at least 18".

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" or



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less, cut a new plank at a random length and use it to start a new row. You will always begin each row from the same side of the room.

To pull planks together always use a tapping block and hammer. Tapping block should be used against the tongue only, never against the groove of the plank. When near a wall, you can use a crow or pull bar to close end joints. Take care not to damage edge of flooring.

GETTING STARTED

For the best appearance wood flooring is often laid parallel to the longest wall. You should make the final decision which direction the planks will run based on the layout of the room and locations of entrances and windows.

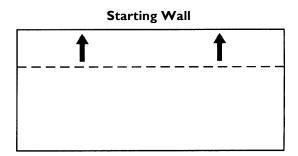
Bamboo Hardwoods® recommends you begin installation next to an outside wall, which is usually the straightest and best reference for establishing a straight working line. Establish your working line by measuring an equal distance from the wall at both ends and snapping a chalk-line. The distance you measure from the wall should be the width of a plank plus about 1/4" for expansion space. You may want to dry lay a few rows (no glue or nails) before starting installation to confirm your layout decision and working line.

Note: If outside wall is out of square, adjust working line to make straight for the rest of your installation. You'll need to scribe cut the first row of planks to match the wall and make possible the straight working line.

NAIL DOWN INSTALLATION

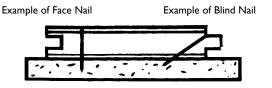
Installing first and second rows

Lay flooring perpendicular to floor joists, unless subfloor is existing hardwood and/or has been strengthened to prevent sagging. Lay first plank inside chalking with grooved edge toward wall. Pre-drill 1/2" from the grooved edge, about 8" apart, and secure planks with finish nails. Use nail punch to sink nails below surface and fill with wood filler. Repeat on tongue edge of plank. Install entire first and second row in same manner. Always leave at least a 1/4" 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.



Installing Floor

Lay subsequent rows by using floor nailer to blind nail top inside edge of tongue at 45° angle. Nail each board every 8" and within 2" of each end. Remember to stagger end joints from row to row and use a tapping block to fit boards together. It may be necessary to face nail in doorways or tight areas where the nailer can't fit. The last two rows will need to be face nailed in the same manner as the first two rows.



See "Finishing the Job"



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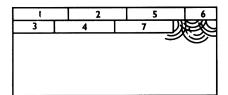
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GLUE-DOWN INSTALLATION

Spreading Adhesive

Use only Bamboo Hardwoods® approved adhesives. Read adhesive instructions carefully for proper trowel size and adhesive set time. Starting at outside wall, spread as much adhesive as can be covered by flooring in one hour (or as recommended by your adhesive instructions). Spread with trowel at a 45degree angle.



Warning: Never use the "wet lay" or "loose lay" method of installing Bamboo Hardwoods® hardwood floors. This is when the floor is installed immediately after spreading adhesive. This method will trap moisture under the floor and cause the flooring to warp. Always allow for adequate cross ventilation when working with flooring adhesive.

Installing the Floor

Once adhesive has set, lay the first row of flooring with groove facing the wall and continue laying flooring until adhesive is covered. Always check your working lines to be sure the floor is still aligned. Use a tapping block to fit planks together, but be careful not to let installed floor move on the wet adhesive while you are working. When first section is finished, continue to spread adhesive and lay flooring section by section until installation is complete. Use damp cloth to immediately remove any adhesive that gets on flooring surface. Remember to stagger end joints from row to row.

Always leave at least 1/4" 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.

Walk each section of flooring foot-by-foot within the adhesive working time to ensure a solid bond with the adhesive. Flooring planks on perimeter of room may require weight on them until adhesive cures enough to hold them down.

See "Finishing the Job"

FLOATING INSTALLATION (Engineered Floors ONLY)

Laying Underlayment

Poly-film: If below grade, first lay a 6mm poly-film with seams overlapped 8". Fasten seams every 18" -24" with duct tape or poly tape. Run the outside edges of film up the perimeter of wall 4" (trim after flooring installation is complete). If installation is on or above grade, poly-film is recommended, but not necessary.

Installing the Floor

Start first row with groove toward wall. Glue end-joints of first row by applying adhesive to bottom of groove. Always leave at least a 1/4" 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 tapping block. Remember to stagger end joints from row to row.

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- Remove expansion spacers and reinstall base and/or quarter round moldings to cover the expansion space.
- Install any transition pieces that may be needed (reducer strips, T-moldings).
- Do not allow foot traffic or heavy furniture on floor for 24 hours (if glue-down or floating).
- Dust mop or vacuum your floor to remove any dirt or debris.

FINISHING THE JOB

• Refer to the floor care and maintenance section for tips on maintaining your Bamboo Hardwoods® wood floor.