

PLEASE READ THESE INSTRUCTIONS IN THEIR ENTIRETY BEFORE BEGINNING THE INSTALLATION.

Installer's / Owners Responsibility

As a natural product, hardwood contains inherent variations in color, grain and appearance and other visual imperfections. Product is manufactured in accordance with industry standards which permit a defect tolerance not to exceed 5%. These defects may be the result of manufacturing or naturally occurring characteristics of the material. It is recommended that a 5% cutting or grading allowance be added to the total sq footage when calculating the quantity of the flooring required.

It is the sole and joint responsibility of the installer and owner to conduct a quality inspection of all the flooring prior to installation. All pieces of flooring should be examined for quality of manufacture, finish and color. If the product quality is deemed unacceptable, it should not be installed. **Flooring that has been installed will be deemed to have been inspected and accepted by the installer and owner.**

It is the sole responsibility of the flooring installer to ensure that the job site, subfloor and installation tools and materials meet or exceed industry standards. Problems arising from incorrect or improper site preparations or installations procedures voids all manufacturer responsibility

Recommended Use

Grade Type	Nail Down	Glue Down	Float
Above Grade	Yes	Yes	Yes
On Grade	Yes	Yes	Yes
Below Grade	Yes	Yes	Yes

Sub-floor Type	Nail Down	Glue Down	Floating
Concrete	No	Yes	Yes
Plywood & OSB	Yes	Yes	Yes
Old wooden floor, particleboard, pressed board, non-wood sub floor	No	No	Yes

Site Preparation:

Prior to installing a wood floor, make sure of the following:

- The building is completely enclosed with all outside doors and windows in place and secured.
- All concrete, masonry, plastering, drywall, texturing, painting and other wet work is complete and has been allowed to cure and dry completely.
- Basements and crawlspaces are dry. Crawlspaces must have no standing water and have a vapor barrier installed in accordance with local building codes.
- Exterior surface drainage is directing water away from the house.
- Interior heat and humidity levels can be controlled and maintained at recommended levels for the duration of the acclimatization and installation period.
- Sub-floor is properly prepared for installation.
- Radiant heat must tested and in operation for a few weeks, glue down installation is the only recommended method over radiant heat

Flooring Acclimatization and Climate Control

Climate control at the job site must be maintained with the temperature between **68-72°F and humidity at 35-55%** before and during the installation. These conditions should be maintained for the one week prior to installation.

Flooring material should not be delivered to job site until the site has been acclimatized as detailed above. After delivery, the flooring must be allowed to acclimatize on the job site for 72 hrs prior to installation. Do not open packages during the acclimatization period; leave boxes sealed until ready to start installation, and then only as needed.

Subfloor Preparation

The installer and customer are jointly and solely responsible for ensuring that the subfloor is suitable for the flooring application and properly prepared for installation.

All sub-floors must be clean, dry structurally sound and flat to within 1/8" in 8'. All subfloors must be tested for moisture content according to NWFA guidelines.

Plywood sub-floors must meet local building code requirements. They must be secure to the joists, free of squeaks and protruding fasteners. Subfloor moisture content must not exceed 12% and the variance in moisture content between the subfloor and the flooring boards must not exceed 4%.

Expansion Space

Hardwood flooring will expand and contract with changes in ambient temperature and humidity. To allow for this, during installation leave a 1/2" expansion space around the entire perimeter of the floor between the flooring and the walls. Also leave a 1/2" expansion space where the flooring will meet and vertical obstacle, such as stairs, pipes, door sills, tiles, cabinets, etc.

Note: In climates with extreme variations in humidity, it may be necessary to leave a larger expansion space.

Color Racking & Installation

Real hardwood contains natural color variations, and in any quantity of hardwood flooring there will be noticeable variations in color between the boards. In order to prevent color "grouping" in the finished floor, it is recommended that boards be racked (visually sorted) before installation to create a satisfactory and pleasing color arrangement. Immediately prior to installation, unpack 4 or 5 cartons to get a sense of the range of color variation and arrange the boards to achieve a satisfactory appearance. Leave the rest of the packages sealed and only open them as needed.

When racking, inspect all boards for visible manufacturing defects. Boards with manufacturing defects in excess of industry standards (5% of total quantity) may be replaced by the dealer under the terms of the product warranty. Once installed, boards will be considered to have been accepted by the customer and will not be eligible for replacement.

After inspecting and racking the boards, set the first row in place with the groove side facing the wall. For the first one or two rows, proximity to the wall will hinder use of the nail gun, and these rows will have to be fastened using other tools.

Nail Down Installation

PLEASE NOTE WHEN INSTALLING ENGINEERED FLOORING, A MANUAL OR PNEUMATIC NAIL GUN OR PNEUMATIC STAPLE GUN DESIGNED FOR USE WITH ENGINEERED FLOORING MUST BE USED. ANY PLANK WIDER THAN 7" SHOULD BE NAILED WITH A GLUE ASSIST.

Ensure plywood sub-floor is suitable and properly prepared. Verify moisture content is within allowable guidelines. A layer of 15 lb roofing felt or building paper should be laid over the entire sub-floor to help retard moisture and minimize flooring noise.

Select your starting wall and snap a guideline parallel to it to set your first row. Allow ½" expansion space along all walls.

Top nail along the length of the board parallel to the starting wall, 1/2" in from the edge of the board (these nails will be covered with molding). Use a pneumatic finish nailer with 18 gauge brad nails. Alternatively, drill pilot holes and set 2" finishing nails with a hammer.

"Blind nail" along tongue edge of the first row using 2" finishing nails driven through the tongue at a 45° angle. Set nails every 8 to 10 inches along the length. Ensure a nail is set 2 to 3 inches in from each end of the board, but to prevent splitting do not set nails less than 2 inches from the end of the board. Countersink the nails to ensure the heads do not protrude and impede the fit of the tongue and groove joint. At the end of the row, cut a board to fit, ensuring board length is not less than 8", and ensure every board is secured by at least two nails along its tongue edge. Allow 1/2" expansion space to end wall.

Sort and lay the next row along the first. (You can use the offcut from the first row to begin the second, if desired.) Stagger all joints by a minimum of 6". Gently set the tongue and groove joint by tapping against the tongue side of the new row with a white rubber mallet or a hammer and wood tapping block. (Never hit the edge of the board directly with a solid hammer.) Blind nail along the tongue edge as before.

By the third row, you should have room to use the nail or staple gun. Set the joint as before, and blind nail the row into place using 2" flooring cleats or staples driven through the tongue at a 45° angle. Space nails every 8" to 10" along the length of the board. Ensure a nail is placed 2" to 3" from each end of each board, but to prevent splitting do not set nails less than 2" from the board ends.

Continue with subsequent rows. Do not use boards of less than 8" in length, stagger all joints by a minimum of 6", and ensure every board is secured by at least two nails. Ensure 1/2" expansion space is maintained at all perimeter walls and other vertical obstacles.

In the last couple of rows, resort to hand nailing as there will not be space to use the nail gun. Use the same procedure as before, blind nailing through the tongue with 2" finishing nails. For final row, rip boards to required width (allowing expansion space at far wall) and top nail into place using a pneumatic finish nailer with 18 gauge brad nails. Alternatively, drill pilot holes and set 2" finishing nails with a hammer.

Install moldings and transitions as required. Ensure baseboard moldings are affixed to the wall, not the floor.

The floor may be used immediately.

GLUE DOWN INSTALLATION

Engineered flooring can be glued directly to concrete sub-floor or wood sub-floor, on the ground floor and second floor or below grade. Not to be installed over vinyl. Sub-floor must be clean and free of any wax, paint, oil, etc.

Use a moisture-cured urethane adhesive specially designed for wood flooring installation. Recommend Solvent based urethane adhesives: Dura Pro Purfloor UL2130 adhesive, Franklin 811, Stauf Ultra-Mastic PUM-950, Bostik's Best. BST and EFT adhesive, Capital woody 600. Follow the installation procedure recommended by the adhesive manufacturer including spread rate, trowel size, open time, working time, and flash time as necessary. Spread the adhesive as instructed up to and along the working line. Use proper cleaners for the glue type selected to ensure that no glue or adhesive residue is left on the finished flooring after installation.

**Do not apply tape to surface of your floor at any time. (Even "special" tape made for hardwood flooring)

Ensure plywood sub-floor is suitable and properly prepared. Verify moisture content is within allowable guidelines. A layer of 15 lb roofing felt or building paper should be laid over the entire sub-floor to help retard moisture and minimize flooring noise.

Select your starting wall and snap a guideline parallel to it to set your first row. Allow ½" expansion space along all walls. Glue the first row in place and spacers against the wall. Continue installing flooring. Only spread enough glue to install what can be set in 45 minutes. Plans can be set directly into wet glue. Work your way out of the room. Use a 100-150 lb roller to apply pressure and insure good adhesive contact. After installations, keep the floor free from foot traffic for a minimum of 24 hours.

FLOATING INSTALLATION

Suitable for floating installation at any grade level.

Ensure plywood sub-floor is suitable and properly prepared. Verify moisture content is within allowable guidelines. A layer of 15 lb roofing felt or building paper should be laid over the entire sub-floor to help retard moisture and minimize flooring noise.

Use a chalk line to trace starting line with 1/2" expansion joint at the side and 1/4" at row ends. Install first plank on starting wall and continue placing expansion spacers every 12" along walls to prevent movement. Apply bead of glue (D3 rated PVA glue) to upper inside groove. Use pull bar to tighten end joint and knocking block for the side. Once entire surface is covered, remove the expansion spacers to install moldings to cover expansion joint. After installations, keep the floor free from foot traffic for a minimum of 24 hours.