

KENTWOOD™

**INSTALLATION INSTRUCTIONS for
Solid Hardwood Flooring**

PRODUCT USE:

This floor may be installed:

- with nail down or staple down installation
- over plywood or OSB subfloor
- on or above grade only

This floor should **NOT** be installed:

- with floating floor or glue down installation
- in bathrooms or laundry rooms
- in any location below grade (basements)
- over a radiant heating system

Use of this product in any of these applications will void the product warranty.

KENTWOOD hardwood floors are for indoor residential use only.

PLEASE READ THESE INSTRUCTIONS COMPLETELY BEFORE BEGINNING THE INSTALLATION.

KENTWOOD™ floors must be installed in accordance with the following instructions. Failure to do so may void the product warranty. Professional installation is recommended for nail down application.

INSTALLER'S / OWNER'S RESPONSIBILITY

As a natural product, wood contains inherent variations in color, grain and appearance and other visual imperfections. KENTWOOD™ floors are manufactured in accordance with accepted 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 square footage when calculating the quantity of flooring required.

It is the sole and joint responsibility of the installer and owner to conduct a quality inspection of all 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, even if the owner is not present at the time of installation.

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It is the sole responsibility of the flooring installer to ensure that the job site, subfloor and installation tools and materials meet or exceed all applicable industry standards. KENTWOOD™ accepts no responsibility for problems arising from incorrect or improper site preparation or installation procedures.

Check local building codes and bylaws before commencing installation to ensure compliance with local requirements. In the event of a discrepancy between local codes and manufacturer's guidelines, local codes should be followed. For further information on installation standards and guidelines, consult the National Wood Flooring Association at www.nwfa.org (Valid member ID# required for access).

SITE PREPARATION:

Installation in newly-constructed home

Installation of wood flooring is one of the last jobs of a new home construction. Prior to installing a wood floor, ensure that:

- the building is completely enclosed with all outside doors and windows in place and securable, including a door from an attached garage to house interior
- all concrete, masonry, plastering, drywall, texturing, painting and other wet work is complete and thoroughly cured and dry
- basements and crawlspaces are dry. Crawlspaces must have no standing water; crawlspaces must also have a vapor barrier and adequate ventilation in accordance with local building codes.
- gutters and downspouts are in place, directing water away from the building
- HVAC systems are fully operational, enabling heat and humidity levels to be controlled and maintained throughout the home
- subfloor is properly prepared for installation

Installation in existing home (Renovation)

Installation in an existing home must meet the same conditions as a new home. If part of a larger remodeling project, ensure that all wet work (painting, wallpapering, texturing, etc) is completed and thoroughly dry before commencing flooring installation. In addition:

- remove all furniture, artwork and other valuables from installation area
- remove baseboards and moldings
- undercut door casings (use a piece of the flooring as a

depth gauge)

- remove existing flooring, if necessary

Climate control

Conditions at the job site must be maintained with the temperature between 65-75°F (18-24°C) and humidity at 35-55% before, during and after the installation. Flooring material should not be delivered to job site until these conditions have been met and maintained for one week prior to installation. Following installation, these conditions should be maintained at all times to ensure proper performance of the floor. See Warranty for details.

When temperature and humidity have met the conditions detailed above, material may be delivered to the job site. If stacking the boxes, cross-stack to ensure good air flow between layers. Do not open the boxes; leave closed until ready to commence the installation, and then open 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 subfloors must be clean, dry, structurally sound and flat to within 1/8" in 8'.

Plywood subfloors must meet local building code requirements (US: minimum 3/4" T&G plywood or 23/32" T&G OSB. Canada: minimum 5/8" T&G plywood or 3/4" T&G OSB). They must be secure to the joists, free of squeaks and protruding fasteners.

Moisture content

All subfloors must be tested for moisture content according to NWFA guidelines, and the moisture content of both subfloor and flooring must be within allowable limits before commencing installation.

The moisture content of the subfloor must not exceed 12%. The moisture content of the flooring must be within 4 percentage points of the subfloor.

Color racking

Real wood flooring contains natural variations in color and grain pattern. In order to prevent color "grouping" or repetitive grain patterns 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 1 or 2 cartons to get a sense of the range of color variation and arrange the planks to achieve a satisfactory

appearance.

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. (See Warranty for details.)

Expansion space

Wood 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 expansion space where the flooring will meet any vertical obstacle, such as stairs, pipes, door sills, tiles, cabinets etc.

NOTE: In climates with extremely high levels of humidity (in excess of 55%), or in large installations (800+ feet), a larger expansion space may be required.

Starting Wall

All wood flooring installations require that the flooring be installed in perfectly straight rows parallel to the starting wall. To verify that the starting wall itself is straight, measure out 12 inches from each end of the wall and snap a chalkline parallel to it. Measure the distance from the line to the wall every 2 or 3 feet. If it is consistent, the wall is straight. If there is a variance anywhere of more than a quarter inch, cut the first row of floor boards to match the shape of the wall.

NAIL DOWN installation

Nail down installation requires three different nailing systems:

- a pneumatic or manual nail gun or staple gun
- a pneumatic finish nailer
- a brad nailer for topnailing

Ensure you are using nailing tools and fasteners appropriate to the thickness of the flooring. Refer to the KENTWOOD™ Recommended Nailers and Fasteners Guide (available from your dealer or online at kentwoodfloors.com/literature) for a complete list of recommended nailers and fasteners. Check your nail gun to make sure the depth gauge is appropriate for the thickness of the flooring. Put tape or felt on the bottom of the nailer to prevent scraping the floor. Replace it as necessary.

Test nail a piece of scrap to make sure the gun is correctly set up, and that the cleats or staples are being properly set.

Ensure plywood subfloor is suitable and properly prepared. Verify moisture content of both subfloor and flooring is within allowable limits before commencing installation.

Open 1 or 2 packages of flooring and rack and inspect boards. (See Color Racking, above.) Select your starting wall and verify straightness as described above.

Set the first row in place with the groove side facing the wall. As a guide, measure in from the chalkline used to check the straightness of the wall to the finished top edge of the board. Remember to allow expansion space.

Using a pneumatic finish nailer, blind nail along the tongue edge at a 45° angle. Space nails every 8" to 10" along the length of the boards.

If installing a domestic species (oak, birch, maple, hickory pecan, etc) ensure there is a nail 2" to 3" from each end of each board, but do not put nails less than 2" from the end of the board as splitting may result.

If installing an exotic species (merbau, kempas, jatoba, tigerwood, acacia, bamboo, etc) ensure there is a nail 4" from each end of each board, but do not put nails less than 4" from the end of the board as splitting may result.

At the end of the row, cut a board to fit, allowing 1/2" expansion space.

Top nail along the opposite edge with the brad nailer. Keep the nailer perpendicular to the grain of the wood and set nails 1/4" in from the edge of the board, so they'll be covered by molding.

Before proceeding, place an underlay of 15 lb building paper, roofing felt or similar material over the rest of the subfloor. It can lay loose, and should not run all the way to the first row of boards - leave a space of about half a board width.

Set the second row in place and set the tongue and groove joints. Do not use boards of less than 6" in length, and stagger all butt joints by a minimum of 6". Blind nail along the tongue as before. By the third row, there may be room to use the nail gun. Continue with subsequent

rows. To avoid a repetitive or predictable board pattern, cut some boards to random lengths to begin rows. Open new packages 1 or 2 at a time and rack and inspect boards as described above. Ensure 1/2" expansion space is maintained at all perimeter walls and other vertical obstacles. Maintain nailing schedule and keep butt joints staggered as described above.

In the last couple of rows, there may not be space to use the nail gun, so revert to using the finish nailer as before, blind nailing through the tongue. For the final row, measure the gap to the wall, allowing expansion space, and rip a row of boards to the required width. Top nail the final row into place using brad nails placed 1/4" in from the edge. Install moldings and transitions as required. Ensure baseboard moldings are affixed to the wall, not the floor.