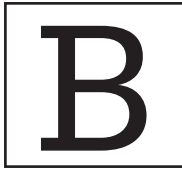


KENTWOOD™

INSTALLATION INSTRUCTIONS for 15mm Solid Bamboo and 15mm Engineered (Crosshatch) Bamboo Flooring



PRODUCT USE: This floor may be installed:

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

This floor should **NOT** be installed:

- with floating floor 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™ 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 and required for glue down application.

INSTALLER'S / OWNER'S RESPONSIBILITY

As a natural product, bamboo contains inherent variations in color, grain and appearance and other visual imperfections. 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.

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 and have been in use for 1 to 2 weeks prior to the installation 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 if installing over plywood, and for two weeks if installing over concrete. 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'. 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.

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. Subfloor moisture content must not exceed 12%, and the variance in moisture content between the subfloor and the flooring boards must not exceed 4 percentage points.

Concrete subfloors must be fully cured (60 days) prior to installation. Moisture content of the slab should not exceed 3 lb / 1000 sq/ft / 24 hours, or as specified by the NWFA for the region and concrete material involved.

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 imperfections. If the quantity of boards with natural imperfections exceeds industry standards (5% of total quantity) these boards 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. **NOTE: unlike most solid wood flooring, KENTWOOD™ bamboo flooring is 15mm (approx 5/8") thick.**

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.

If installing engineered (crosshatch) product, glue the butt edges together using a non-crystallizing wood flooring glue (eg Deccobond). Apply glue in a 1/8" bead to upper edge of groove portion of joint only. Set joints closed using a white rubber mallet or hammer and tapping block. Never use a hammer directly on the tongue and groove joints as damage to the joint may result. Clean up excess glue immediately according to glue manufacturer's instructions.

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. **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 (the one closest to the wall) with the brad nailer. Keep the nailer perpendicular to the grain of the bamboo 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. If installing engineered (crosshatch) product, glue the butt edges together. 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.

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GLUE DOWN INSTALLATION

GLUE DOWN INSTALLATION SHOULD ONLY BE PERFORMED BY PROFESSIONAL WOOD FLOORING INSTALLERS.

Ensure subfloor is suitable and properly prepared. Verify moisture content of both subfloor and flooring is within allowable limits before commencing installation. There are several acceptable techniques for starting a glue down installation. The following is one common procedure; installers may prefer another method with which they are more familiar.

Select the starting wall and verify straightness as described above. Snap a chalk line parallel to it at a distance equal to ten rows of flooring, plus expansion space. Nail a guide strip along the chalk line on the starter wall side.

Use a moisture-cured urethane adhesive specially formulated for wood flooring installation (eg Bostik's Best, Bostik TKO, Franklin 811). For trowel selection, adhesive application and all other aspects of adhesive usage, follow the adhesive manufacturer's instructions.

Open 1 or 2 packages of flooring and rack and inspect boards. (See Color Racking, above.) Apply adhesive to the subfloor and set first row of boards along the guide strip with the tongue against the guide strip. Leave 1/2" expansion space between the end of the first board and the wall. At the end of the row, cut a board to fit, ensuring board length is not less than 12". Allow 1/2" expansion space to end wall. If desired, use offcut to begin next row, but do not use offcuts of less than 6" in length.

Set subsequent rows working away from starter wall. When installing new boards, avoid pushing them into place across the subfloor as this may unevenly redistribute the adhesive. Instead, hold the new board above the subfloor at an angle, engage the tongue and groove joint, then press the board directly down onto the subfloor. Ensure no glue is forced into tongue & groove joints during installation as this may affect the fit of the joint. **Avoid getting adhesive on the flooring surface, and clean up any seepage or spills immediately according to adhesive manufacturer's instructions.**

To prevent boards shifting after they have been set into place, strap them with blue mask tape. (Do not use regular masking tape as it may leave a residue of adhesive on the surface.)

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. Do not use boards of less than 6" in length, and stagger all butt joints by a minimum of 6". Ensure 1/2" expansion space is maintained at all perimeter walls and other vertical obstacles.

Complete the installation to the far wall. For final row, rip boards to required width (allowing 1/2" expansion space at far wall). Remove the guide strip from the starter row and complete the last ten rows back to the starter wall.

When installation is complete, remove all the blue mask tape from the floor. (Do not leave the blue mask tape on the floor for more than 24 hours.) If desired, roll the floor with a padded roller of recommended weight (100 to 150 lbs.) Install moldings and transitions as required. Ensure baseboard moldings are affixed to the wall, not the floor. Wait 24 hours before moving furniture or appliances onto floor.