Engineered Flooring Installation

START
INSTALLATION

- Floating - Tongue and Groove System
- Glue-Down Installation
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Depending on the sub-floor and personal preference, engineered flooring with tongue and groove structure can be installed using one of three ways: floating, glue down or nail/staple down methods. Flooring with clic system is designed for floating installation only. Allwood engineered flooring includes Antiqua, e1, Galaxy, and all the engineered bamboo in the Classic and Strand collections. Bamtastic and Dream collections are Clic systems, which should follow the Floating-Clic System installation instructions. Engineered flooring can be installed on, above or below grade level.

Floating Floor Installation – Tongue and Groove system

STEP 1: Establish a Starting Point

- Installation parallel to the longest wall is recommended for best visual effects, however, the floor should be installed perpendicular to the flooring joists, unless the subfloor has been reinforced to reduce subfloor sagging. Find appropriate subfloor from "Subfloor Type" section in this instruction manual.
- When possible, always begin layout or installation from an outside wall, as these are normally the straightest.
- Pre-plan the floor by counting the number of planks (in width) that it will take to complete the floor. Avoid finishing out with a rip narrower than 2". Plan to start the first row with a partial board, ripping it to the necessary width to avoid a narrow rip on the final wall.
- In at least two places 12"-16" from the corner, measure out equal distances from the starting wall and snap a chalk line. The chalk should be of a bright color so that it is visible through the underlayment or adhesive. If a partial, ripped board is required (as above) it can be installed after the balance of the flooring has been completed. Adjust the starting line to allow for the width of the board plus 3/8" for expansion. Ascertain that the wall is straight. If it is not, scribe the first row to allow for irregularities.
- Install a starter board on the inside edge of the chalk line aligned to create a straight edge to work against. Attach the starter board to the subfloor using nails appropriate to the subflooring materials. Install the underlayment before installing the starter board.

STEP 2: Installing the Underlayment

- Install the underlayment before installing the flooring. For best results use “Allwood’s All in One” EVA underlayment.
- Roll the underlayment in the same direction that the wood flooring is to be installed.
- Extend the underlayment a few inches up the wall. Excess will be trimmed off prior to installing trim or moldings.

- Firmly bond the sheets together to cover the entire floor. The floating floor underlayment already has double-sided tape for ease of taping the precut overlapping seams.

STEP 3: Installing the Floor

- Always allow 3/8" expansion around all vertical objects.
- Select your first board; apply a continuous 1/8" glue bead to the top of the tongue on the end of the board. Do not apply glue to the side-tongue at this time.
- Lay the first board with the grooves facing the edge of the starter board and the left wall of the room. (Always leave expansion space).
- Complete the first row. Cut the last board allowing for 3/8" clearance between the wall and the floor. (Use the remaining end of the cut board as a starter board for any row after). Use an installation bar to pull the last board into place. Install wedges into the gap and tighten.
- If any glue gets on the surface of the flooring, wipe off immediately with a damp cloth.
- Start the second row by applying a continuous bead of adhesive along the top side of the tongue of row one.
- In the remaining rows, stagger joints at least 6" apart. When installing boards together, use a tapping block against the tongue, not the groove. Apply a bead of adhesive to the tongue on the end and side. Tap the boards into place by tapping with a hammer on the tapping block. Do not tap directly on the boards with the hammer. Be sure all joints are tight. Use spacers on the long and butt walls. Use an installation bar to tighten the joints from the ends. Remove excess adhesive with a damp towel.
- The final row of boards, in most installations, will need to be ripped lengthwise to fit. The cut has to compensate for uneven walls and the expansion clearance or gap necessary between the wall and the flooring. First, lay the last row face-up on top of the last row permanently installed. Now, using a stub of a board and a pencil, scribe the proper guide lines and cut the board.
- Use an installation bar to pull in the last row and install wedges.
- Remove the starter board and install the final row using the installation bar as above.
- Allow the completed floor to rest undisturbed (no foot traffic) for a minimum of 8 hours before removing the wedges.
- Before leaving the job site, check the floor under proper lighting for any trace of glue on the surface. Use Adhesive Cleaner to remove stubborn glue. Install molding the following day. Refer to the floor care and maintenance section for maintaining your wood flooring.

Glue-Down Method

STEP 1: Preparation

- Maximum Adhesive Working Times
    - Open time and curing time of adhesives vary dependent upon the type of adhesives, subfloor porosity, air movement, humidity and room temperature. Always read the label on the adhesive container before proceeding. Typical working time for urethane adhesives is about 60 minutes, and polymeric resin adhesives 90 minutes.
    - Urethane adhesives have a shortened work time in high humidity environments whereas polymeric resin adhesive working time will be lengthened. In areas of low humidity, open time will be longer with urethanes and shorter with polymeric resins. Adjust the amount of adhesive spread accordingly. The adhesive should not be applied if subfloor or room temperature is below 65° F.
    - Spread sufficient amounts of adhesive with the recommended trowel in an area that can be covered within the maximum working time. Polymeric resin adhesives should be rolled every two hours and at the end of the day. If a urethane adhesive is to be rolled, do not do so until the adhesive has cured for two hours.
- Use Kneeler Board
    - Avoid installing from the surface of the flooring. If necessary, distribute weight using a kneeler board. Always refer to specific adhesive instructions on the adhesive label.
- Padded underlayment will not be used in this application.

STEP 2: Spreading the Adhesive

- Hold trowel at a minimum 45° angle firmly against the subfloor to obtain a 50-60 sq. ft. per gallon spread rate. The trowel will leave ridges of adhesive and very little adhesive between the ridges. This will allow you to still see the chalk lines between the ridges and provide the recommended spread rate. If the adhesive skins over and fails to transfer, remove and spread new adhesive to achieve proper bonding to the subfloor. Working time will vary depending on job site conditions.
- During the installation occasionally remove a piece of flooring from the subfloor and inspect the back for proper adhesive transfer. Adequate adhesive transfer is necessary to ensure sufficient holding strength.
- When not in use, keep the adhesive container tightly closed to prevent thickening. Thickening will cause difficulty in spreading the adhesive.
- Proper ventilation within the room must be provided. An electric fan is helpful.
- If the floor is to be covered, use a breathable material such as cardboard. Do not cover with plastic.

NOTE: Clean adhesive from the surface of the floor frequently using the recommended adhesive cleaner. Do not use blue tape before adhesive is removed. Use a clean towel, changed frequently to prevent haze and adhesive residue.

STEP 3: Installation of Flooring

- The first row of planks should be installed with the edge of the groove lined up against the starter board. The tongue should be facing the starting wall. The first row must be aligned and seated in the adhesive as all additional rows will be pushed back to this original row.
- Apply a bead of adhesive to all of the end tongues prior to installing into the adhesive. Gluing of the edges is not necessary in glue-down applications.
- Use wedges against the starting wall to prevent movement. Tighten or loosen as necessary to allow for variations in the wall, always keeping planks aligned with the chalk line.
- Avoid working from the surface of the newly installed floor to prevent scooting. Use a kneeler board if necessary to distribute weight.
- When installing planks, engage the end-joint first as close to the side (long) tongue and groove as possible and then slide together tightly to engage side (long) joint tongue and groove. To avoid adhesive bleed-through and memory pull-back, avoid sliding pieces through the adhesive as much as possible when placing them in position.
- Check for a tight fit between all edges and ends of each plank. End-joints of adjacent rows should be staggered 6" when possible to ensure a more favorable overall appearance.
- Use a glue-down tapping block and a hammer to tighten all joints. Note that Allwood engineered floor collections are purposely designed with tight tongue and groove connections for better hold-in-place before the glue is cured.
- To eliminate minor shifting or gapping of product during installation, use masking tape to hold the planks together. After installation is complete, remove all the mask tape from surface of newly installed flooring. Do not let tape remain on flooring longer than 24 hours. Avoid use of masking tape that leaves an adhesive residue.
- Be sure to spread adhesive only within your current work area.
- Complete the installation using this same technique for the remainder of the floor.
- Remove the starter board and install the final row as above.
- Avoid heavy foot traffic on the flooring for at least 24 hours. Lift the furniture or fixtures back into place after 24 hours.

Staple/Nail-Down Method

STEP 1: Establish a Starting Point

- Installation parallel to the longest wall is recommended for best visual effects, however, the floor should be installed perpendicular to the flooring joists unless subfloor has been reinforced to reduce subfloor sagging. Find appropriate subfloor from "Subfloor Type" section in this instruction manual.

- With frame construction, mark location of joists on perimeter walls so that starting runs and finishing runs, which require face nailing, can be nailed into joists.
- When possible, always begin layout or installation from an outside wall, as these are normally the straightest.
- Pre-plan the floor by counting the number of planks (in width) that it will take to complete the floor. Avoid finishing out with a rip narrower than 2". Plan to start the first row with a partial board, ripping it to the necessary width to avoid a narrow rip on the final wall.
- In at least two places 12"-16" from the corner, measure out equal distance from the starting wall and snap a chalk line. The chalk should be of a bright color so that it is visible through vapor retarder. If a partial, ripped board is required (as above) it can be installed after the balance of the flooring has been completed. Adjust the starting line to allow for the width of the board plus 3/8" for expansion. Ascertain that the wall is straight. If it is not, scribe the first row to allow for irregularities.

STEP 2: Installing Vapor Retarder

- Before installing the floor, use a vapor retarder. Some examples of acceptable vapor retarders over wood subfloors include:
    - An asphalt laminated paper meeting UU-B-790a, Grade B, Type I, Style 1a.
    - Asphalt-saturated kraft paper or #15 or #30 felt that meets ASTM Standard D4869 or UU-B-790, Grade D.
    - Cover the subfloor with a good grade of #2 vapor retarders. Extend the felt/building paper completely to the walls and fasten the felt to the subfloor.

STEP 3: Installation of Flooring

- Lay one row of planks along the entire length of the working line. The groove should be facing the starting wall.
- Top-nail and blind-nail the first row (hand-nail if necessary). Each succeeding row should be blind-nailed wherever possible.
  a. Typical: narrow crowned (under 3/8") 1"-11/2" staples or 1"-1¼" hardwood flooring cleats designed for engineered flooring.
  b. Typical: every 3-4" with staples, every 4-6" with cleats, and within 1-2" of end joints. Use appropriate size fastener for top nailing first row, last row and any area where blind nailer will not fit.
- Add each additional row of flooring. Distribute lengths, avoiding "H" patterns and other discernible patterns in adjacent runs. Stagger end joints of boards row to row a minimum of 6 inches.
- During installation of flooring pieces, push or gently tap boards flush to the previous row. Tap against the tongue; tapping the groove may damage the edge. To prevent damage to the finish, avoid tapping the face of the board with a rubber mallet. Note that Allwood engineered floor collections are purposely designed with tight tongue and groove connections for better hold-in-place before the glue is cured when using floating and glue down installation methods.

References:

This Allwood Installation Instruction Manual is created based on the National Wood Flooring Association (NWFA) Installation Guidelines (updated Sept, 2012). These guidelines by NWFA are regularly reviewed by a committee of industry experts, offering industry-accepted standards for hardwood flooring techniques. Follow NWFA Installation Guidelines if any of the instructions in this manual differ or conflict from the former. Contact your local distributor if you need a copy of the guidelines.