



Engineered Floor Installation Guide



Introduction

This guide will take you through the necessary steps to install your Bel-Air Engineered Wood Flooring. Make sure to carefully read through this guide so that you may know the best way to prepare for the installation. Before reading this guide please make sure to read the **Bel-Air Flooring Pre-Installation Guide, Bel-Air Engineered Wood Maintenance & Care Instructions and Bel-Air Engineered Wood Flooring Warranty** available at www.belairwoodfloor.com. Failure to follow the instructions given in these guides, as well as improper installation, will void the warranty given by Bel-Air Wood Flooring. If you have any questions regarding this guide, or have any questions not covered in these documents; please contact Bel-Air Wood Floors at: (888) 800-9206 Monday – Friday, 8am – 5pm PST

CAUTION: WOOD/SAW DUST

The International Agency for Research On Cancer has classified wood dust as a nasal carcinogen. The sawing, sanding, and/or machining of wood products can produce wood dust that can cause respiratory, eye, and skin irritations. Wood machining power tools should be equipped with a dust collector to reduce airborne wood dust. Wear an appropriate NIOSH designated dust mask to reduce exposure to airborne wood dust. Avoid contact with eyes and skin by using proper safety glasses and protective clothing. In case of irritation, flush eyes or skin with water for at least 15 minutes. For further technical for installation questions or to request a Product Specification Data Sheet contact the manufacturer at 888-800-9206 Monday – Friday, 8am – 5pm PST.

Attention California Installers and Consumers:

WARNING! Installation of this product and any wood product may create wood dust, which is known to the State of California to cause cancer. Avoid inhaling wood dust or use appropriate protection such as NIOSH mask for personal protection

It is the homeowner/installer responsibility to ensure that the correct type, model, collection, and color were delivered to the jobsite prior to installation. The homeowner/installer can do so by comparing it with the “sample” that the floor was selected from, ensuring the floor is the correct flooring received and it is acceptable for installation. It is up to the homeowner/installer to inspect the product for any visible defects or damages prior to installation. If the floor does not meet the homeowners/installers expectations and/or is not acceptable for installation; please contact Bel-Air Wood Floor before beginning installation! The Bel-Air Wood Flooring Warranty does not cover any claims related to incorrect type, model, collection, color, visible defects or damages once installed. No replacement or refunds will be offered or issued once the floor is installed!



1. Defect & Irregular Tolerance

Bel-Air Engineered Wood flooring is manufactured in accordance with accepted industry standards, which permit manufacturing, grading and natural deficiencies to not exceed 5%. If more than 5% of the material is unusable, do not install the flooring. Immediately contact the retailer from which the flooring was purchased. No claim will be accepted for materials with visible defects once the floor was installed. Installation of any material serves as acceptance of the material.

2. Calculating & Ordering

When calculating square-footage and ordering engineered flooring please consider adding at least 10%-15% for cutting & waste. Engineered flooring like any other wood flooring must be cut to fit around obstacles such as but not limited to: Stair-cases, wall contours, pipes, and other household items.

3. Shipping, Handling & Storage

Please refrain from shipping, loading or unloading engineered wood flooring in rain, snow or other humid conditions. Make sure to store flooring boxes in an enclosed building that is well ventilated. When storing the engineered floor boxes make sure to leave adequate room around the stacked boxes to allow air circulation. Do not store engineered-flooring cartons near heating, cooling ducts or direct sunlight.

Do not deliver wood flooring to the jobsite or install wood flooring until appropriate temperature and humidity conditions have been achieved. Appropriate temperature and humidity conditions are defined as those conditions to be experienced in the building after occupancy.

4. Acclimation

Bel-Air Wood Flooring products are made to perform best when wood reaches its EMC of 6%-9%, which directly coincides with a relative humidity range of 30%-50%, and within a temperature ranging from 60° to 80° Fahrenheit. These conditions are usually the normal living conditions of any normal household. Therefore, it is recommended to acclimate Bel-Air Engineered flooring for at least 3-5 days in order to allow the planks to adjust to the new environment.

Please Note: Acclimation Process Can Vary By Flooring Type And Geographic Location. Please refer to the Bel-Air Flooring Pre-Installation Guide For More Detailed Information Regarding Acclimation, Relative Humidity (RH) And Floor Equilibrium Moisture Content In Area!



5. Professional Installation

It is suggested that Bel-Air Hardwood floor be installed by an experienced wood flooring professional. A professional installer should be able to provide evidence of past work either via references or show completed work. They will also know what inspections to make that are required before, during, and after installing hardwood flooring. If not installed by a flooring professional; installer assumes any risk of issues arising due to improper installation, and/ or any issues arising from improper Pre/ Post installation inspections. Further more, Bel-Air makes no warranty or guarantee of the quality of the chosen installer's work or of a particular installation performed by him/her. Bel-Air disclaims all liability for any errors or improprieties in the installation of its products by an installer. Please contact the National Wood Flooring Association (800-422-4556) to find a certified installer in your area, or for more information on the installation of hardwood flooring.

6. Job Site Conditions

It is the sole responsibility of the homeowner/installer to determine if the job site conditions, environment, and installation surface (Sub-Floor) are acceptable for Bel-Air Engineered flooring installation as well as meet or exceed the NWFA (National Wood Flooring Association) industry standards and regulations. Please make sure to evaluate the job site for potential problems before wood flooring is delivered and installation begins.

PLEASE NOTE: Bel-Air Wood Floors warranty does not cover any failures resulting from, or related to, job-site environment/condition or sub flooring deficiencies.

- Homeowner/Installer must ensure that the building is structurally complete and sound.
- Homeowner/Installer must ensure appropriate/consistent temperature and humidity conditions have been achieved. Appropriate temperature and humidity conditions are those that replicate conditions to be experienced in the building once occupied
- Insure that moisture and humidity test have been performed prior to shipping flooring to the job site.
- Ensure proper drainage exists around the structure.

7. Installation Surface & Sub-Floors

The list of sub-floors mentioned below is limited! Please refer to the Bel-Air Pre Installation Guide for sub-floor requirements and complete detailed list of approved sub-floors. Bel Air engineered floor can be installed over:

- CD Exposure 1 plywood.
- OSB Exposure 1 subfloor panels.
- Concrete slab.



Sub-Floor Requirements: The homeowner and/or installer must make sure:

- **Safe & Sound** - That the sub-floor is properly fastened, structurally supported, and meets or exceeds all applicable local building codes & regulations as well as the NWFA (National Wood Flooring Association) guidelines.
- **Clean & Dry** - The homeowner and/or installer must make sure that the installation surface (sub-Floor) is clean, dry and free of any debris such as nails, wax, oil or any adhesive residue.
- **Flatness** - Installation Surface / Sub-Floor Must be flat to a tolerance of 3/16" per 10' radius (4.76mm, In a 3.05m.) and the surface slope must not exceed 1" in 6' (2.54 cm in 1.83 m). If installation surface (Sub-Floor) does not meet the requirements stated below necessary steps must be taken to correct the problem.
- **Soft Installation Surfaces / Sub-Floors** - Soft Sub-Floors such as carpet or padding must be removed prior to installation

Bel-Air wood flooring is can be installed by floating, nailing down, gluing down, and in some cases, stapling down. This allows Bel-Air wood to be installed over most floor structures. Since Bel-Air wood flooring is composed of natural material, the floor will expand and contract with changes in relative humidity. The use of T-Moldings, or wider molding systems, will be required to help with any fluctuations in humidity levels throughout the life of the floor.

PLEASE NOTE: Flooring planks that are grater then 5" in width are NOT recommended for nail or staple down installation.

Tools and Material:

Spacing wedges 1/4" – 5/16", Pull Bar, Utility Knife, Tapping Block, Pencil, Tape Measure, Hammer, NIOSH-designated Dust Mask, Square/Straight Edge , Hand or Power Jamb Saw, Drill, Carbide-Tipped Circular or Miter Saw, Chalk Line, Safety Glasses, Broom, Painters Tape, Adhesive

Preparing the Jobsite:

Prepare for the installation by removing any existing baseboards trims, and transitions mouldings. Undercut all door casings at the height of the new floor so it will fit underneath (Remember to allow a gap over 1/16" for expansion).

As a general rule, the floor should be laid parallel to the longest wall. This will create an aesthetically pleasing look. With that said; it is the installers' responsibility to meet the expectations of the home owner and what they feel the floor should look like. A dry lay of the floor will help determine in which directionthe panels will be laid, as well as starting and ending points.

An expansion gap of 1/4" to 5/16" must be provided at all walls and fixed vertical surfaces to allow for expansion.



Measure the area of the room to get an idea for a “balanced” layout. The width of the first row of planks at the starting wall should be approximately the same width as the last row on the finishing wall. This can be adjusted by rip cutting the panels. The starting or finishing rows should not be less than 2” in width. Or half the plank (whichever is greater). This will also be a good time to inspect each plank for imperfections and damage as you go through the installation.

General Installation Tips

- Allow for the minimum 1/2” expansion space from a wall.
- Maintain a 5/16” expansion gap at all fixed vertical objects.
- Work from several different cartons to minimize “clustering” of patterns.
- It is a good idea to pre-lay 4 - 5 rows of planks ahead of time so that you can get an idea of what planks will go where. Pre-laying will help to make sure that the planks match in terms of joints and color as well.
- Maintain a random stagger of end seams.
- Use the recommended trowel for the application in order to apply the proper quantity of adhesive as well as to maximize spread rate.
- Do not use a water based adhesive with hardwood flooring.
- Lay out small sections to ensure the adhesive does not dry before the planks are laid.
- Work from several different cartons to minimize “clustering” of patterns.
- Cut planks with imperfections or save them to install in areas that is not as visible.
- Check for a tight fit between all edges and ends of each board. Occasionally lift a board to check for adequate adhesive transfer and adjust as needed.
- You can use a plank and a 1/2” spacer to mark your cutting line on the last row.

Floating Installation:

Step 1:

- Begin the installation in the top left hand corner against the wall. Remove the tongue on the first row of the planks to provide for a solid edge at the wall. Place the plank a minimum of 1/2” from wall on the left. Use the installation spacers throughout all edge areas to insure the correct expansion space is maintained. Continue this down the entire length of the wall.
- If any part of the wall is uneven, the planks must be adapted to its contours. You can scribe the contour of the wall onto adjacent planks using a 2” square block and a pencil following along the contour of the wall. You will still use spacers to maintain the expansion space along this wall.

Step 2:

- Assemble the first panel in the second row to the adjacent panel in the first row by slightly angling tongue into groove until plank locks into position. Press the plank forward and fold down into place.
- Whenever practical, use the piece that was cut from the end of the previous row to start the next row.



The plank must be at least 12" (No shorter than 8") long. If the piece is too short, start with a new board.

- Cut the new board so as to maintain the random stagger from one row to the next. Always ensure that the end joints are staggered at least 12 to 16 inches from one row to the next. (Use painters tape to secure the panel across the assembled joint to hold it in place.)

Step 3:

- Continue this trend, laying down additional polyfilm as required until you reach the end wall. The seams of the polyfilm should overlap about 8".

Step 4:

- When you get to the end wall; measure and cut the planks in the last row to fit. Remember to allow for a minimum of 1/2" expansion space from the wall. You can use the plank and 1/2" spacer to mark your cutting line on the last row.
- In areas such as doorjambs or cabinet kick bases, where planks cannot be angled to lock into place, use a wood chisel to remove the locking ridge from the bottom of the plank groove.
- Apply a 1/8" bead of adhesive to the bottom groove, and gently tap the plank into place using a pull bar and hammer.
- Once in, be sure to apply enough strips of painters tape across the seam to hold the joint securely in place until the adhesive sets.

Step 5:

- Once all planks are installed, start clean up. Use a clean, soft, cloth to carefully clean up any excess adhesive on the surface of the planks.
- With cleaning complete and any adhesive used is cured; remove spacers and install appropriate trims and moldings.

Glue-Down Installation:

Step 1:

- Start by lining up your guide planks. Make a chalk line to trace a starting line parallel to the starting wall the width of the plank plus the 1/2" expansion gap.
- Nail guide planks along the starting line on the side closest to the wall. These planks will serve as guides for the first rows of planks.

Step 2:

- Use a trowel to apply adhesive at a 45° angle from the starting line outward. Follow the manufacturer's recommendations for the application of the adhesive.



Step 3:

- Install the plank along the starting line with the tongue facing you and the groove facing the starting wall. Press the plank forward and fold down into place.
- Whenever practical, use the piece that was cut from the end of the previous row to start the next row. The plank must be at least 12" (No shorter than 8") long. If the piece is too short, start with a new board.
- Cut the new board so as to maintain the random stagger from one row to the next. Always ensure that the end joints are staggered at least 12 to 16 inches from one row to the next. (Use painters tape to secure the panel across the assembled joint to hold it in place.)
- If the last plank in a row has to be cut, you will have to determine the length of the cut. The easiest way to do it would be to measure the distance of the end of the installed plank, and the end wall. Be sure to account for the expansion gap in your cut. Make your cut, and fit into place.

Step 4:

- Apply pressure to installed plank(s) to increase wood/adhesive bond.
- A 100-150 lb. roller can be used to apply pressure to installed sections while the adhesive is still active (app. 45-60 min.).

Step 5:

- Continue this trend on the subsequent rows, inserting the tongue end into the groove and lowering the plank as close as possible to the adjacent one.
- Use a non-destructive adhesive tape every five or six rows to ensure planks remain in place.

Step 6:

- When you get to the end wall; measure and cut the planks in the last row to fit. Remember to allow for a minimum of 1/2" expansion space from the wall.
- In areas such as doorjambs or cabinet kick bases, where planks cannot be angled to lock into place, use a wood chisel to remove the tongue.
- Apply a 1/8" bead of adhesive to the groove, and gently tap the plank into place using a pull bar and hammer.
- Once in, be sure to apply enough strips of painters tape across the seam to hold the joint securely in place until the adhesive sets.

Step 7:

- Once the entire surface is covered, remove the guide planks repeat steps 2-4 and lay planks in the space left at the start of installation.



Step 8:

- Once all planks are installed, and any adhesive is cured, remove spacers and install appropriate trims and moldings

Nail/Staple Down Installation:

CAUTION: It is extremely important to use the appropriate adapters as well as staples or cleats. Improper fasteners, machines, and air pressure can cause severe damage.

Floors That are Less than 5' In width are NOT recommended For Nail/Staple-Down Installation!

Step 1:

- Start by lining up your guide planks. Make a chalk line to trace a starting line parallel to the starting wall the width of the plank plus the 1/2" expansion gap.
- On the first row of flooring use 6d or 8d flooring nails to top nail surface of flooring and countersink (pre-drilling nail holes will prevent splits). Nail or staple on 8" centers along edge, per NWFA Guidelines.

Step 2:

- After nailing down the first 22 sq/ft, test to make sure that this section of flooring is firmly affixed. To test this place weight on the planks and look for rocking on the groove side (held by the tongue). If placing and removing weight causes rocking the floor will have to be glued down in addition to nailing it in order to correct it.

Step 3:

- Stagger the ends of boards at least 6" in adjacent rows creating a stair-step pattern. Continue across the room with a recommended floor-stapling machine until finished.
- Fasteners should be spaced every 3" – 4" along the length of the board. There should be a minimum of 2 fasteners per piece, and 1" – 2" from each end.

Step 4:

- Once all planks are installed, and any adhesive used is cured, remove spacers and install appropriate trims and moldings

Repairs

Always inspect panels before installation; however, if damage occurs during installation, the following repair procedures may be used: If a panel is slightly damaged or chipped, fill the void with a color matched filler. Bel Air carries an array of colors to match your floor.



If a panel is severely damaged and must be replaced the flooring will need to be disassembled back to the damaged planks. Determine the shortest distance from a sidewall and remove the molding. Lift the planks a few inches and tap along the joint. Remove the entire row back to the damaged area. Replace the damaged plank and reassemble the flooring.



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