



En Bois Hardwood Installation Instructions

PLEASE READ ALL INSTALLATION GUIDELINES BEFORE PROCEEDING WITH INSTALLATION

All installation instructions must be followed for warranties to be considered valid.

Installer/Owner Responsibility

Prior to installation the Installer/Owner should perform a final inspection of the grade, manufacturing and factory finish of the purchased products. Warranties do not cover visible defects once they are installed. (Based on industry standards a defect/irregular tolerance of up to 5% is allowed).

Wood is a natural product that can vary in color, grain, and contains natural characteristics that varies from plank to plank and is to be expected. We do not warrant against these natural variations from plank to plank or variations from sample to plank.

If you are not satisfied with the flooring prior to installation, simply return the cartons to your dealer for a full replacement. Accepting or rejecting the material must be done on full shipment of quantities only, not carton by carton or plank by plank.

The Installer must use reasonable selectivity and hold out or cut off pieces with defects, whatever the cause. Beautiful hardwood floors are a product of nature and therefore not perfect.

Pre-inspect the job site prior to delivery of the floor to ensure the structure is suitable for hardwood flooring installation using the following guidelines:

Since improper installation can void the warranties. Only a professional hardwood floor installer should perform the installation.

If at any time during the installation of this flooring you have a question or a concern, STOP and call your dealer! Verify that the color, gloss, texturing and T&G fit are acceptable prior to starting the installation.

En Bois will only be responsible for obvious issues in flooring that has not been installed.

IMPORTANT: The primary cause of problems with any hardwood floor is moisture, either too much or too little. It is the contractor's / homeowner's responsibility to ensure that the conditions prior to install, as well as for the life of the hardwood floor, meet certain criteria.

The wood sub-floor to which you are gluing your hardwood floor must have a moisture content (MC) of 12% or less when measured with a properly calibrated pin-type moisture meter and should be within 3% of the measured MC of the hardwood flooring prior to installation.

The sub-floor must remain at 12% or less MC throughout the life of the hardwood floor. It is the contractor's / homeowner's responsibility to verify those measurements, and to ensure that the environment, including the crawl-space, is and will remain dry.

Other factors which can affect the MC of the floor, and cause problems, are uncontrolled environmental relative humidity (RH). It is the homeowner's responsibility to install, operate and monitor such systems as necessary to maintain a RH of between 35% and 55%, and a temperature range of between 60o and 80 o F at all times.

Failure to ensure a maintain a dry subfloor and/or crawl-space or failure to regulate environmental RH or temperature as required can lead to excessive cupping, splitting, checking and gapping. Such occurrences will not be covered as manufacturing defects by En Bois Hardwood Warranty.

Pre-Installation/Jobsite Requirements

Open a few boxes of flooring to confirm that the flooring meets the homeowner's expectation for grading, color and texture. Installed flooring constitutes acceptance of flooring outside of a manufacture related defect.

GENERAL CONDITIONS

It is the installer/ Owners' responsibility to ensure that the jobsite conditions and jobsite subfloor are environmentally and structurally acceptable prior to the installation of any hardwood flooring. En Bois Hardwood declines any responsibility for failures or deficiencies of hardwood flooring resulting from or related to sub-floor, subsurface, or job-site environmental conditions. All substrates must be clean, flat, dry, and structurally sound.

SUBFLOOR TYPES AND CONDITIONS

- Subfloors must be clean and free of dirt, curing compounds, sealers, drywall mud, paint, wax, grease, urethane, or other materials that may affect the integrity of the flooring material or adhesives used to install the flooring.
- All subfloors and subfloor systems must be structurally sound and must be installed following their manufacturer's recommendations. Local building codes may only establish minimum requirements of the flooring system and may not provide adequate rigidity and support for proper installation and performance of a hardwood floor. Whenever possible install the planks perpendicular to the floor joists for maximum stability. En Bois Warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures.
- Test subfloor moisture content and choose adhesive system according to the Glue-Down Installations section. Record the results of the test with permanent marker on the subfloor such that it can be found later.
- A "DRY" SLAB, AS DEFINED BY THESE TESTS CAN BE WET AT OTHER TIME OF THE YEAR. THESE TESTS DO NOT GUARANTEE A DRY SLAB.
- Basements and crawl spaces must be dry. Use of a 6 mil black polyethylene is required to

cover 100% of the crawl space earth. Crawl space clearance from ground to underside of joist to be no less than 18" and perimeter vent spacing should be equal to 1.5% of the total square footage of the crawl space area to provide cross ventilation. Where necessary, local regulations prevail.

- The subfloor must be flat, meeting a minimum of 1/8" within 10'.
- Repair all cracks in the subfloor greater than 1/8" before applying flooring adhesive.
- All "wet" work – i.e. – paint, drywall, concrete, masonry, plumbing must be complete and dry well in advance of delivery of hardwood flooring.
- Gutters and downspouts should be in place and the exterior grade complete to allow for proper drainage of water away from the building's exterior perimeter.
- Flooring should not be exposed to extremes of humidity or moisture.
- Permanent HVAC should be on and operational a minimum of 7 days and maintained between 60o and 80o F and a relative humidity of 35%- 55% prior to delivery, during, and after installation of the flooring.
- If HVAC is not possible at time of installation the environmental conditions must be at or near normal living conditions between 60o and 80o F and at the average yearly relative humidity for the area.
- It is the Installer's/Owner's responsibility to ensure that the conditions are acceptable prior to the installation of the hardwood floors. The manufacturer declines any and all problems with the hardwood flooring that are related to or attributed to improper jobsite conditions.

RECOMMENDED SUBFLOOR SURFACES

- **Concrete subfloors:** Newly poured concrete must be cured for a minimum of 42 days before installation. Concrete subfloors must meet the requirements for the adhesive or adhesive system selected.
- **Wood Subfloors**
Preferred: 3/4" CDX grade Plywood subfloor/ underlayment, 4'x8' sheets or 3/4" OSB subfloor/ underlayment grade, PS2 rated, sealed side down, with joist spacing of 19" on center or less.

Minimum: 5/8" CDX Plywood subfloor/ underlayment, 4'x8' sheets, maximum 16" on center joist construction. Follow panel manufacturer's recommendations for spacing and fastening. Typical panel spacing and fastening for joist systems, 1/8" (3.2mm) around perimeter and fastened every 6" on bearing edges and every 12" along intermediate supports.

- Installation of flooring should not be made over joists spacing greater than 19" on center or parallel to the joists unless the subfloor has been properly strengthened, applying a second layer of underlayment may be necessary to bring the overall subfloor thickness to 1-1/8" (minimum).
- Test the moisture content of the wood subfloor and wood flooring with a pin type moisture meter. Wood subfloors must not exceed 12% and the wood flooring should be within 3% of the wood subfloor.
- For existing wood floors install new flooring at right angles to the existing flooring.
- Do not glue hardwood flooring over particle board.
- Do not install over existing glue down hardwood floors.

HANDLING, STORAGE, AND ACCLIMATION

- Do NOT store material in a garage, outside or in a home or building that is not climatized to 35% to 55% RH.
- Storing in environments other than a controlled environment will cause the wood to take on or lose moisture which will cause the flooring to shrink or grow.
- The moisture content of the material will be 8%-10% moisture content and is ready to install and does not require acclimation. Please test prior to installing.
- Only open material that will be installed. Leaving planks out of plastic wrap exposes the planks to change prior to installation.

Preparing for Installation

STOP! All questions or concerns regarding the grading or milling of this product are required to be resolved prior to installation. The manufacturer accepts no

responsibility or liability for the cost of this product, replacement and/or labor when flooring containing grade, milling, distressing or finishing defects has been installed prior to resolutions. Installing this product assumes full acceptance of this flooring.

IMPORTANT!

- **Per 3M:** ScotchBlue™ Painter's Tape Original Multi-Surface 2090 is not recommended for use on prefinished flooring. The only adhesive tape which should be used with flooring is ScotchBlue™ Painter's Tape Delicate Surface 2080. Traditional "Blue Tape" contains chemical solvents that, over time, may penetrate and weaken the finish. DO NOT use "Blue Tape". Even when using ScotchBlue™ Painter's Tape Delicate Surface 2080, do not leave tape on flooring for longer than 3 days. When possible, apply tape to baseboards or walls rather than flooring.
- **Inspect the Flooring:** Inspect material for color, finish, milling, and grade. Hold out pieces that may not be acceptable once installed. PLEASE NOTE: We do not accept responsibility for any costs incurred when plank(s) with visible defects have been permanently installed.
- **Undercut Door Casings:** Undercut all door casings 1/16" higher than the thickness of the flooring being installed. To do this, use a scrap piece of flooring as a guide. Lay it on the substrate and cut the casing with a handsaw or use a power jamb saw set at the correct height.
- **Blending of Cartons:** To achieve a uniform appearance across the entire floor, we highly recommend that you open and work from several cartons at a time and dry-lay the flooring, mixing the planks from several cartons. This will allow you to blend the planks for maximum aesthetic appearance. Make certain the room is well lit to ensure color is consistent and that any visual defects can be seen and removed.
- **Match Transition Moldings:** For best appearance, blend all transitions and moldings to planks that have similar color and graining. Set them aside for use as needed.
- **Layout of Flooring:** "Racking the floor" is essential to achieve a random appearance. Start by either using random-length planks

found in the carton or by cutting four or five planks in random lengths, differing by at least six inches. As you continue working across the floor try to maintain a six-inch minimum between end joints.

- Randomly install different lengths to avoid a patterned appearance.
- **Never waste materials:** the end cuts from starter rows should be used at the opposite side of the room to complete rows or used to start the next row.
- **Expansion Space:** Allow a minimum 5/8" expansion around all vertical obstructions. Large spans exceeding 20' (6 m) in hardwood flooring width, in areas of high humidity, may require the addition of internal or field expansion. This can be accomplished by using spacers, such as small washers, every 10-20 rows, inserted above the tongue. Remove the spacers after several adjoining rows have been fastened. Do not leave spacers in for more than two hours.

Glue-Down Installation Guidelines

En Bois Engineered Flooring should be installed via glue-down installation only. (For installations over Radiant Heat systems, see also the section on Radiant Heat Installations.) Adhesive and Moisture Barrier Systems from the following manufacturers are permitted for the full-spread glue-down installation of Engineered Floors:

Please use one of the recommended adhesive products.

Installing on Concrete: Fortane Zero-Fortane One
Installing over plywood: Fortane LD

Follow the Adhesive Manufacturer's Installation Instructions for the testing of subfloor moisture content. Choose an adhesive and (if necessary) moisture barrier system that is warranted by the adhesive manufacturer for installation under those circumstances. Manufacture will not be responsible for problems that might arise due to moisture transference from a subfloor to the hardwood flooring.

Please note the following exceptions:

Adhesive Removal: Use the adhesive manufacturer's recommended Adhesive Remover according to the instructions on the bottle.

In case of any other conflict between adhesive manufacturer's instructions and Installation or Care and Maintenance Instructions, please contact your dealer for resolution.

Installation Over Radiant Heat Systems

Except Hickory and Maple flooring all En Bois Flooring products are warranted for Installation over **Hydronic Radiant Heat system** provided the following installation guidelines as well as the After Installation and Seasonal Operation guidelines detailed herein are strictly followed. Failure to strictly follow these guidelines may void all En Bois Hardwood Warranties.

- Sub floor must be prepared and tested as detailed under PRE-INSTALLATION & JOBSITE CONDITIONS with the following additional requirement: The moisture content for concrete sub floors registered after a calcium chloride test must not be greater than 2 pounds per 1,000 square feet of area. If it exceeds these limits, DO NOT install the flooring.
- Relative humidity of the jobsite must be maintained between 35-55% relative humidity. Use of a humidification system is required to maintain the proper humidity level. Failure to maintain proper humidity level can result in excessive dryness of flooring.
- It is highly recommended that the radiant heat system be designed specifically to accept a wood floor.
- Use of floor temperature sensor(s) as well as a separate thermostat for each individual room is required.
- An outdoor temperature sensor should be used to adjust water temperature according to anticipated heat loss.
- Prior to installation of flooring the radiant system must be installed per manufacturer's instructions.
- Radiant heat system should be set to run at 2/3 maximum output for a minimum of 2 weeks prior to installation of flooring to further allow moisture from concrete to dissipate and reach

- a final moisture content. This must be done in both heating and non-heating seasons.
- Prior to installation (4 days) reduce to a temperature of 65°.
- Install flooring following the instructions for glue-down installations as detailed earlier in this document.

AFTER INSTALLATION & SEASONAL OPERATION

- 48 hours after completion of installation, slowly raise temperature of the heating system to its preferred operating level over a period of 5 days. Do not allow the surface temperature to exceed 80°.
- Humidity level must be maintained between 35%-55% R.H.
- To minimize the effect that rapid change in temperature will have on the moisture content of the wood floor, an outside thermostat is recommended
- Seasonal gapping should be expected.
- Surface checking can be expected if the proper humidity level is not maintained between 35-55% R. H. or if the floor's surface temperature exceeds 80°.
- The floor's surface temperature must never be allowed to exceed 80°F. Failure to control the maximum floor temperature may void your En Bois Hardwood Warranties.
- Humidity level must be maintained between 35%-55% R.H. Failure to control the humidity level may void your Manufacture Limited Warranties.

Completing the Job

- Sweep or vacuum floor.
- Clean the floor with Bona Hardwood Floor Cleaner.
- Install transition pieces -i.e. – thresholds, t-moldings, baseboards and quarter round. Nail moldings to wall, not the floor.
- Inspect final floor for nicks and or minor gaps – fill with appropriate color wood putty.
- Leave Warranty and Maintenance brochure with customer.
- Unused material should be left with owner and stored in a dry place in case of future repairs are needed.

- Use plywood or hardboard when moving heavy appliances or furniture across floor.

Floor Protection During Construction

Always protect the surface of the installed flooring during construction by laying a quality rosin paper or other paper that will allow the floor to breathe, taping it to the baseboards. Never use plastic or polyethylene sheeting to cover the floor since they will trap moisture that will damage the flooring.

Care & Maintenance

En Bois Collection is a high quality, natural wood engineered flooring. NEVER USE a wax or oil based cleaning product. *En Bois recommends Bona® cleaning products. Bona (also known as BonaKemi®) is widely regarded as the best cleaning solution available.

All purpose cleaners are not recommended as they can dull your floor's finish or leave a hazy residue. Today's hardwood floors are quick and easy to maintain; and with a little preventative maintenance, can look beautiful for years to come. All hardwood floors should be cleaned regularly. Simply sweep, dust mop, or vacuum to remove grit and dirt. When necessary, clean floor with Bona® hardwood floor cleaning product (carefully follow Bona cleaning instructions). Avoid using a wet mop as over time this can damage the finish. Remember: water and wood do not mix.

DO's:

- Sweep, vacuum, or dust mop regularly.
- Immediately wipe up liquid spills with cloth or paper towels.
- Maintain with Bona® hardwood floor cleaner for un-waxed/un-oiled finishes.
- Use felt protectors or furniture coasters under heavy furniture.
- Close curtains or blinds to limit direct sun exposure.
- Maintain room temperature (60-80°F).
- Maintain relative humidity in room/building between 35-55% year-round.
- Caster wheeled chairs should have wide casters.
- A protective mat should be placed under office chairs.
- In areas with icy or snowy winters, extra protection against salt and grit may be needed.

- Place mats and throw rugs at doorways, exteriors and interiors to help prevent the tracking of grit, dirt, and sand.
- Remember that cleats, sports shoes and high heels can dent any floor surface.
- Place an area rug in front of the kitchen sink to catch water.

DON'Ts:

- Use oil base soaps.
- Use paste wax-based products (NEVER wax a lacquered finished floor).
- Drag sharp wooden legs or metal furniture legs as it can scratch/dent hardwood floors.
- Expose to direct sunlight for extended periods of time as it may dry/fade natural wood.
- Use steam cleaners. They are not recommended for use on natural wood flooring.
- Place porous flower pots or vases on the floor.
- Use steel wool or scourers.
- Move heavy furniture without protecting wood flooring by slipping a piece of cloth or pile under the legs or bottom of items.
- Wet-mop a wood floor. Standing water can dull the finish, damage the wood, and leave a discoloring residue.

COLOR CHANGE: Normal exposure to sunlight, heat, air conditioners, etc. will bring about natural changes in the original color as the floor ages. If possible, use blinds or drapes to protect floor from excessive sunlight. when some areas of the floor are covered, as in large furniture pieces and area rugs, the change under these pieces can be lighter than the surrounding floor, as they are not exposed to the same conditions. This is normal and is not a defect. Rotating the position of area rugs and furniture from time to time will allow the covered areas to slowly adjust in color to the surrounding floor.

SURFACE CHECKS: During the winter months of low humidity, minor surface cracks (checks) may appear in wood flooring, then often close up again in the summer months when the humidity is higher. This is a normal characteristic of natural wood and not a basis of a complaint against the manufacturer, especially if there is no structural failure.

SEASONAL GAPS: Seasonal gapping can be expected, especially on wider planks. This is normal and not a defect. Throughout its life wood will naturally

expand and contract in response to the wet and dry seasons and also from the environmental conditions in the home. To keep these dimensional changes to a minimum, maintain the home temperature and relative humidity within the range outlined in Section, Pre-installation/Job Site Requirements.

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VISIT OUR WEBSITE: WWW.ENBOISFLOORING.COM
FOR ANY RECENT UPDATES OF INSTALLATION
GUIDELINES.



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