

Engineered Wood Installation and Warranty

Pre-Installation Responsibility

Job site should meet or exceed all requirements outlined in installation instructions and should refer to NWFA Wood Flooring Installation and Guidelines Methods guide if needed. Installer and Owner are responsible for all job site, sub-floor and environmental conditions and Manufacturer declines all responsibility of product, performance or installation failure. All work involving water or moisture must be completed prior to flooring being delivered.

Acclimation of Engineered wood flooring for a minimum 72 hours prior to installation. Additional acclimation of 3 to 5 days may be required based upon local climatic conditions. Boxes should be opened in room of installation. Heating or air conditioning must be on and operating at normal levels for at least five days preceding installation so the boards can acclimate to their environment. Prior to installation, ensure that wood flooring is within acceptable range of moisture content with the wood subfloor. No more than 2% moisture content difference between properly acclimated wood flooring and subflooring materials for flooring 3" or wider. Room temperature should be 60-80 degrees Fahrenheit with relative humidity between 30 – 50%. Do not install in full bathrooms or powder rooms. Not approved over radiant heat. Refer to NWFA Acclimations guidelines for more information.

Record your Moisture Readings:

Wood Subfloor	Concrete Subfloor
Subfloor Moisture Content _____%	Test Method & Results
Hardwood Moisture Content _____%	Calcium Chloride Test Results _____
Difference between Subfloor & Flooring _____%	RH Test Results _____
	Electronic Meter Test Results _____

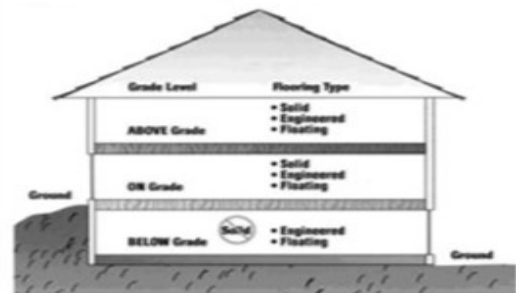
*For Complete Job Site Checklist please refer to NWFA Installation and Guideline Methods.

Shade Variations in colors, tone and graining are normal as wood is a natural product and contains natural characteristics from the tree. Flooring should be examined prior to installation for color, finish and quality. Unacceptable material should not be installed. Industry standards allow defects both natural and manufacturing up to 5%. Flooring installed will not be covered under manufacturer warranty due to any visible defect. Installer and Owner are responsible for final inspection of flooring manufacture, grade and finish.

Job Site Inspection

Wood flooring should be one of the last items installed. All work involving water or moisture (plumbing, acoustical ceilings, drywall, taping, etc) should be completed prior to wood flooring being installed. Buildings with crawl space foundations should include a vapor barrier 4 to 6 mil polyethylene installed between the ground and the sub-floor.

Engineered Wood Flooring can be installed successfully on, above or below grade level. Flooring should not be delivered until the building has been closed in and cement work, plastering, painting and other materials are completely dry.



If the soil surrounding a structure is 3 inches or more above the floor of any level, consider that level below grade. This includes walk-out basements. In addition, the surrounding soil should be sloped away from the structure.

Concrete Subfloor Specifications

A. Subfloor Must Be Flat

1. Make sure the concrete slab is flat to the wood flooring manufacturer's specification. Typically, manufacturers will specify a flatness tolerance of 1/8" to 3/16" in a 10-foot radius.
2. If the slab is out of specification, consider grinding, floating or both. Many high spots can be removed by grinding, depressions can be filled with approved patching compounds, and slabs also can be flattened using a self-leveling concrete product.
3. When sanding or grinding concrete, care must be taken to minimize the amount of silica dust produced. OSHA recommends using dust-collection devices, or applying water to the concrete before sanding. Approved respirators may also be used to minimize the amount of silica dust inhaled.

B. Subfloor Must Be Dry

1. Refer Chapter 3, Moisture Requirements and Moisture Testing.
2. Concrete moisture meters and other tests can be useful in identifying moisture problem areas. However, NWFA guidelines specify using relative-humidity testing (ASTM F- 2170), calcium chloride testing (ASTM F-1869) or calcium carbide (CM) testing (ASTM D-4944-04 and MilSpec CRD-C154-77) to identify the moisture content of the slab. See Chapter 3 and Appendix C.
3. If a slab tests too high in vapor emission to glue a floor down, consider using a vapor retarder type product, installing a vapor retarder and a plywood sub-floor or using an alternative installation method.
4. Concrete slabs with a calcium chloride reading of more than 3 require use a vapor retarder with a perm rating of 1 or less. It is strongly recommended to use an impermeable vapor retarder with a perm rating of .13 or less, such as 6 mil polyethylene film.

C. Slab Must Be: 1. Minimum 3000 psi 2. Free from non-compatible sealers, waxes, and oil, paint, drywall compound etc.

- a. Check for the presence of sealers by applying drops of water to the slab, if the water beads up, there may be sealers or oils.

D. Do not attempt to glue a wood floor over a chalky or soft concrete slab. E. Burnished, slick steel-troweled slabs may require screening with a 30-grit abrasive.

Engineered Wood Installation Methods

Choose a starting wall according to the most aesthetically or architecturally important elements in the room, taking into consideration fireplaces, doors, cabinets and transitions, as well as the squareness of the room. The starting wall will often be the longest unbroken wall in the room.

Glue-Down Engineered Strip and Plank

1. There are several different ways to start the installation of glue-down engineered wood flooring. The following has proven successful. However, where instructions differ from manufacturer recommendations, manufacturer recommendations prevail.
2. Test the substrate for moisture according to appropriate moisture testing procedures. Excessive/elevated moisture should not be present. The subfloor should be within acceptable moisture content as per adhesive and wood manufacturer's recommendation before installing.
3. Expansion space should be left around the perimeter in accordance with the manufacturer's recommendation.
4. Snap a working line parallel to the starting wall, the width of the board, plus the tongue and recommended expansion space.
5. Install a starter board along the edge of the working line and begin installation. Alternatively, lay one row of plank in the adhesive along the length of the working line.
6. Follow manufacturer instruction for tongue and groove direction and placement.
7. Use an adhesive approved by the flooring manufacturer. Follow the installation procedure recommended by the adhesive manufacturer, which includes subfloor moisture content, spread rate, trowel size, open time, working time and flash time as necessary. Spread the adhesive as instructed up to and along the working line.

8. Distribute lengths, avoiding “H” patterns and other discernible patterns in adjacent runs. Stagger end joints of boards row to row a minimum of 6” for strip flooring, 8-10” for 3” to 5” plank, and 10” for plank wider than 5”. (See Figures 8-1 and 8-2.)

9. If recommended by the manufacturer, use tape or tensioners to maintain a tight floor.

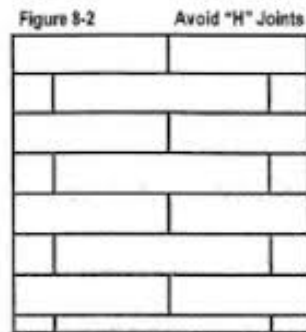
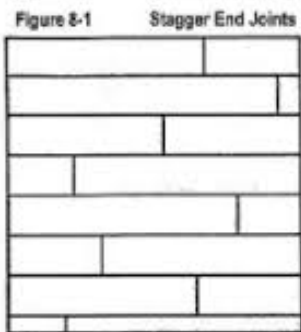
10. If recommended by the adhesive manufacturer, roll the floor with the proper roller.

Mechanically Fastened Strip and Plank

1. If necessary, add a vapor retarder.

2. Snap a working line parallel to the starting wall, allowing expansion space as specified by the manufacturer.

3. Lay one row of plank along the entire length of the working line.



4. Top-nail and blind-nail the first row (hand-nail if necessary), using appropriate fasteners. Denser species may require pre-drilling. 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, spaced as recommended by the manufacturer. 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.

5. 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” for strip flooring, 8-10” for 3” to 5” plank, and 10” for plank wider than 5”.

6. 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.

Floating Engineered Flooring

1. Subfloor flatness is critical to the success of a floating floor installation. (See Chapter 4, Wood Subfloor Guidelines, and Chapter 5, Concrete Subfloor Guidelines.)

2. Test the substrate for moisture according to appropriate moisture testing procedures in Chapter

3. Excessive/elevated moisture should not be present. The subfloor should be within acceptable moisture content as per manufacturer recommendation before installing.

4. If necessary, add vapor retarder. (See Acceptable Vapor Retarders in Chapter 3, Moisture Requirements and Moisture Testing.)

5. Expansion space should be left around the perimeter or in accordance with manufacturer’s recommendation.

6. Typical: Subfloors are covered with a resilient material, foam underlayment or cork. Follow manufacturer’s instructions for correct materials and thickness.

7. Typical: floating engineered flooring is edge-glued or edge-attached with a self-locking mechanism. a. For edge-glued products, use an adhesive approved by the manufacturer. b. Apply adhesive at the spread rate to the side grooves and/or ends as recommended by the manufacturer.

8. Starter boards should be aligned with the groove side and end against the starting wall. Tapping block should be used against tongue only. 9. Stagger end joints per manufacturer’s recommendation. Typical: 18”-20”.

WOOD FLOOR WARRANTIES

Lifetime Structural Warranty:

The manufacturer warrants its products in their original manufactured conditions, to be free from defects in milling, dimension, and grade. All warranties are given to the original purchaser of the product and are non-transferable.

Residential Finish Warranty:

The manufacturer warrants to the original purchaser that the finish on its aluminum oxide factory finished products, from the date of purchase, when used under normal residential traffic conditions, as applicable, will not wear through or separate from the wood. See product information on years covered below;

Manufacturer 25 Year Finish Warranty applies on Chesapeake Plank, Highland Hickory and Santa Fe Plank products.

Manufacturer 15 Year Finish Warranty applies for Eldorado Plank

Installation Warranty:

Installation of any flooring constitutes acceptance of its grade, milling and finish. The manufacturer has no control over installation methods or site conditions, and therefore cannot warrant any installation or site related issue.

Installation should be done in compliance with the procedures outlined in the installation instructions and professional installer recommended. Installer and/or owner of the wood floor are responsible to inspect the flooring before installation and if they find hardwood not suitable for installation, hardwood should be returned in original packing to original place of purchase. Industry standards allow a 5% margin for error and imperfections and shall not be considered a structural defect under the terms of this warranty.

Warranty Exclusions:

Engineered Wood Flooring is a natural product and characteristics such as mineral streaks, knots, variations in grain and color are not considered defects. Newly installed floor will vary from samples or pictures shown and is not covered by our warranty. The use of putties during and after the installation are considered normal and is not cause for a claim against this warranty. Warranty excludes natural expansion and contraction resulting in separation between boards, or damage caused by low or excessive humidity.

The manufacturer warranty excludes indentations, scratches, or damages caused by misuse, negligence, accidents, fire, erosions, insects, pets, dirt or pebbles, shoes, furniture, other abrasives, lack of proper maintenance. Water and/or moisture damage including, but not limited to damage from broken pipes, wet mopping, steamers, cleaning products not approved or recommended for hardwood, weather or natural disasters, is excluded from all warranties. Cupping and buckling of the floor is caused by local sources of moisture and is excluded from warranty coverage.

No warranties apply to any product or products designated as thrift, antique, tavern, bargain or cabin, seconds, economy grades. Please read all instructions and disclaimers on any cleaning products to include hardwood floor cleaning products, as cleaning products can damage the finish of your floor and are not considered manufacturer covered warranty.

FLOOR CARE AND MAINTENANCE

- Never wet mop your hardwood floors. Excess moisture or liquids can cause damage to your hardwood floor.
- Use hardwood flooring cleaners such as Capture, Minwax, Mapei and other approved cleaners.
- Wipe up spills as soon as possible. Use professional hardwood floor cleaners.
- Do not use oil soaps, wax or other household products to clean floor.
- Sweep regularly or dry dust mop.
- Use door mats or area rugs with soft non-abrasive urethane backed. To prevent slippage, use an approved vinyl rug underlay.
- Normal exposure to sunlight will bring about changes in the shading of any hardwood floor as the floor ages. Area rugs should be moved occasionally as they block sunlight and may give the appearance of discoloring the rug. This is not a defect.
- Pet nails will scratch the hardwood flooring and should be kept trimmed.
- Use felt protectors under heavy pieces of furniture and all chairs.
- Protect floor when moving furniture or appliances.
- Spiked heels or shoes in need of repair can severely damage flooring.
- A humidifier is recommended to prevent excessive shrinkage in wood floors due to low humidity levels. Excessive humidity can also adversely affect your floor.
- In damp conditions, proper humidity levels can be maintained with air conditioning or dehumidifier.

WARRANTY POLICIES

Any warranty for a product distributed by Southern Wholesale Flooring Company ("Southern") is provided by the manufacturer and is subject to terms specified by that manufacturer regarding product inspection and acclimation, installation, environment control, continuing maintenance and appropriate use. Product packages include specific warranty information and installation instructions, and such information may also be provided on the Southern website. If you cannot locate the manufacturer's installation instructions and warranty information, you must contact Southern for the replacement instructions prior to installation. In all cases, failure to follow the manufacturer's instructions will void any and all warranties.

Southern will assist the consumer and / or the selling dealer in filing claims with the manufacturer. Except as offered by the manufacturer, Southern, as the distributor, disclaims all express or implied warranties (including, but not limited to, warranties for merchantability and fitness for particular purpose). Southern's liability for a defective product, if any, shall be limited to a credit of the purchase price from Southern for any uninstalled product, with apparent manufacturing defects, reported to Southern in writing within fifteen days of the date of purchase. Southern will not be responsible for incidental and /or consequential damages. Some states do not allow limitations or exclusions on strict liability, implied warranties, incidental damages and / or consequential damages, so these limitations may not apply to you.

Southern does, from time to time, offer items which are designated as cabin, tavern, thrift, seconds, etc. or are sold on close out. Notwithstanding other provisions of the Warranty Policies, such items are sold "as is", without any warranties, either express or implied.

Please contact your salesman or customer care representative, if you need manufacturer specific warranty and / or installation information or have any other questions.