



## **Installation Guidelines for Engineered and Solid Wood Flooring**

PLEASE READ THESE INSTRUCTIONS IN THEIR ENTIRETY BEFORE BEGINNING THE INSTALLATION.

**ATTENTION:** Naturele Elegance Flooring Installation Guidelines are intended to offer general guidance as it relates to Naturele Elegance flooring, and are NOT a replacement for a professional, certified installer. **Naturele Elegance flooring MUST be installed according to the National Wood Flooring Association's (NWFA) installation guidelines for the Naturele Elegance Flooring Limited Warranty to be valid.** The most current publication of the NWFA guidelines is available to all NWFA members and can be found at [www.nwfa.org](http://www.nwfa.org).

### **Installer's / Owners Responsibility**

As a natural product, hardwood contains inherent variations in color, grain and appearance and other visual imperfections. Naturele Elegance Flooring is manufactured in accordance with industry standards which permit a defect tolerance not to exceed 5%. These defects may be the result of manufacturing or naturally occurring characteristics of the material. It is recommended that a 5% cutting or grading allowance be added to the total sq footage when calculating the quantity of the flooring required.

It is the sole and joint responsibility of the installer and owner to conduct a quality inspection of all the 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.

It is the sole responsibility of the flooring installer to ensure that the job site, subfloor and installation tools and materials meet or exceed industry standards. Naturele Elegance voids all responsibility for problems arising from incorrect or improper site preparations or installation procedures.

### **Site Preparation:**

Prior to bringing the flooring onto the jobsite, make sure of the following:

- The building is completely enclosed with all outside doors and windows in place and secured.

- All concrete, masonry, plastering, drywall, texturing, painting and other wet work is complete and has been allowed to cure and dry completely.
- Basements and crawlspaces are dry. Crawlspaces must have no standing water and have a vapor barrier installed in accordance with local building codes.
- Exterior surface drainage is directing water away from the house.
- Interior heat and humidity levels can be controlled and maintained at recommended levels for the duration of the acclimation and installation period.
- Sub-floor is properly prepared for installation.
- Radiant heat must be tested and in operation for two weeks prior to installation.

**Recommended Use**

<b>Grade Type</b>	<b>Nail Down</b>	<b>Glue Down</b>	<b>Floating</b>
Above Grade	Yes	Yes	Engineered Only
On Grade	Yes	Yes	Engineered Only
Below Grade	Engineered Only	Engineered Only	Engineered Only

<b>Subfloor Type</b>	<b>Nail Down</b>	<b>Glue Down</b>	<b>Floating</b>
Concrete	No	Yes	Engineered Only
Plywood & OSB	Yes	Yes	Engineered Only
Old wooden floor, particleboard, pressed board, non-wood subfloor	No	No	Engineered Only



## **Flooring Acclimation and Climate Control**

Climate control at the job site must be maintained with the temperature between 60°-80°F and humidity at 35-55% before and during the installation. These conditions should be maintained for the two weeks prior to installation. This may require the use of an appropriate ventilation and/or humidification system including a humidifier or dehumidifier.

Flooring material should not be delivered to job site until the site has been acclimated as detailed above. After delivery, the flooring must be allowed to acclimatize in the room in which it will be installed for at least 72 hrs prior to installation. Failure to allow flooring to acclimate prior to installation may cause/exhibit stress, cracks, cupping, and squeaks. Do not open packages during the acclimation period. Leave boxes sealed until ready to start installation, and then open only as needed.

Moisture should be checked at the time of installation using a reputable wood flooring moisture meter. Multiple readings should be taken from several cartons and areas of the subfloor. The NWFA Guidelines state a good representative sample is typically 40 boards for every 1000 square feet of flooring. It will take longer for the planks in the middle of cartons or at the bottom of the carton stack to acclimate fully. Wood or plywood sub-floors should not exceed 12% EMC. The moisture content between the wood flooring and the subfloor should not exceed 2%. Acclimate to geographical location and your jobsite location. Never install a wood floor over a known moisture condition. For further acclimation cautions and procedures, see the NWFA Guidelines.

## **Wood 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. Subfloor irregularities and undulations may cause any wood flooring installation to develop hollow spots between the flooring and subfloor and/or lead to noise, i.e., squeaking, popping, or crackling. These hollow spots are not the result of any wood floor manufacturing defect and are not covered by the flooring manufacturer warranty.

All wood subfloors must be clean, dry structurally sound and flat to within 3/16" in 6' or 1/4" in 10". All wood subfloors must be tested for moisture content and be constructed of the minimum thickness requirements according to NWFA Installation Guidelines.

Plywood sub-floors must meet local building code requirements. 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 2%.

Laying direction for flooring over joist construction: Flooring should be laid at right angles to the floor joists and, if possible, in the direction of the longest dimension of the room. Alternatively, the flooring could be laid at a 45 degree angle to the joists. Flooring should not be installed parallel with the joists unless additional subfloor requirements have been met. See the NWFA's Installation Guidelines for additional information regarding installing wood flooring parallel to the floor joists.

## Expansion Space

Hardwood flooring will expand and contract with changes in ambient temperature and humidity. To allow for this, the expansion space around the entire perimeter of the floor between the flooring and the walls should be the same distance as the thickness of the flooring. Also leave this expansion space where the flooring will meet any vertical obstacle, such as stairs, pipes, door sills, tiles, cabinets, etc.

Note: In climates with extreme variations in humidity, it may be necessary to leave a larger expansion space.

## Color Racking, Matching Trims & Installation

Real hardwood contains natural color variations, and in any quantity of hardwood flooring there will be noticeable variations in color between the boards. In order to prevent color “grouping” 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 4 or 5 cartons to get a sense of the range of color variation and arrange the boards to achieve a satisfactory appearance. Leave the rest of the packages sealed and only open them as needed. If transition and/or trim moldings are to be used on the project, select boards that will closely match the adjoining moldings/trim pieces and set those selected flooring pieces aside to be installed against the trims.

When racking, inspect all boards for visible manufacturing defects. Boards with manufacturing defects in excess of industry standards (5% of total quantity) 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.

## Nail Down and Glue Assisted Nail Down Installation

Installation of the flooring should follow the NWFA’s Installation Guidelines. For a copy of their guidelines, visit [www.nwfa.org](http://www.nwfa.org). In addition to their guidelines, these below points should be followed.

PLEASE NOTE: WHEN INSTALLING **ENGINEERED FLOORING**, A MANUAL OR PNEUMATIC NAIL GUN OR PNEUMATIC STAPLE GUN DESIGNED FOR USE WITH PREFINISHED ENGINEERED FLOORING MUST BE USED (ie; Powernail 50P; Powernail 50F or equivalent) AND HAVE A PROTECTION FOOT TO MINIMIZE DAMAGE TO THE FINISHED FLOORING.

WHEN INSTALLING **SOLID FLOORING**, A MANUAL OR PNEUMATIC NAIL GUN OR STAPLE GUN DESIGNED FOR USE WITH PREFINISHED SOLID FLOORING MUST BE USED. (ie; Powernail 445; Bostitch MIII or equivalent) AND HAVE A PROTECTION FOOT TO MINIMIZE DAMAGE TO THE FINISHED FLOORING.

Use of an incorrect fastener gauge and/or length may cause squeaking, crackling, popping or delamination of the ply’s and is not considered a manufacturer defect.

When installing **ANY** Naturele Elegance Flooring, the minimum fastener length of **1 1/2"** is required. If your nailer does not accept a minimum **1 1/2"** fastener, it is an incorrect tool to install Naturele Elegance Flooring. Recommended fastener length and spacing:

#### Engineered T&G wood flooring

- 18g-20g cleat or narrow crowned (1/4") 18g staple. Not less than 1 1/2" in length.
- 3"-4" intervals along length of each board.
- 1"-2" from each end-joint of every board.
- Minimum 2 fasteners per board.

#### Solid plank T&G wood flooring 3/4" thick

- 15.5g, 16g, or 18g cleat or staple.
- Not less than 1 1/2" in length.
- 6"-8" intervals along length of each board.
- 1"-3" from each end-joint of every board.
- Minimum 2 fasteners per board.

Ensure plywood sub-floor is suitable and properly prepared. Verify moisture content is within allowable guidelines. A layer of 15 lb roofing felt, Aquabar B or building paper (no rosin paper) should be laid over the entire sub-floor to help retard moisture and minimize flooring noise.

Flooring movement due to seasonal changes may cause squeaks and pops and are not covered by the Naturele Elegance Flooring Structural Warranty. Due to the reduction in the number of fasteners used per square foot of flooring width, Naturele Elegance recommends for best performance, wide plank (greater than 4" in width) solid and engineered wood flooring be installed using the glue-assisted installation method. Utilizing both glue and mechanical fasteners can help reduce squeaking any popping during these seasonal changes. When this method is chosen, do not use a builder paper as mentioned above as glue assisted applications must have direct contact with the subfloor. Instead, a liquid, roll on vapor retarder can be applied prior to the installation if needed.

To perform a glue assisted nail down installation, utilize a premium grade MS polymer elastomeric adhesive (such as DriTac 7700 Easy Clean or equivalent) and apply adhesive to the subfloor or back of each board. Below are a few common patterns for adhesive on the plank.

SERPENTINE (SINE-WAVE) PATTERN



ENDS AND GROOVES PATTERN



PARALLEL STRIPES PATTERN



LENGTHWISE PARALLEL STRIPES PATTERN



Maintain proper expansion space when installing the flooring. At your starting and closing rows, the adhesives used to glue assist can be utilized in securing these boards as an alternative to top nailing.

**IMPORTANT:** When using a trigger-activated flooring nailer with the glue-assisted installation method, the installer must either stand on the flooring, or apply a downward pressure to the surface of each board as it is nailed. This will ensure the flooring does not lift away from the subfloor causing unnecessary vertical movement or hollow noises.

Where mechanical fasteners on a nail-down installation are the primary installation method, the nailing schedule should remain the same as normal installation for the flooring being installed utilizing the glue assist method. The addition of adhesive is not intended as a replacement fastener mechanism, rather supplemental to the mechanical fastener. For more Glue Assist recommendations and cautions, see the NWFA's Installation Guidelines.

Install moldings and transitions as required. Ensure baseboard moldings are affixed to the wall, not the floor. The floor may be used immediately.

### **Concrete Subfloor Preparation**

Concrete subfloors must have a minimum 3000 psi rating and have a Concrete Surface Profile (CSP) of somewhere between CSP 1 and CSP 4. Moisture testing should be performed utilizing a Calcium Chloride Test following the ASTM F-1869 testing procedures or a Relative Humidity Test following the ASTM 2170 testing procedures. If these test show over 75% (RH test) or above 3 lbs (Calcium Chloride test), a vapor barrier is required over the slab prior to installation. Contact your adhesive manufacturer for a recommended vapor barrier that would be compatible with your adhesive.

The slab should be flat to within a minimum tolerance of 1/8" in 6', or 3/16" in 10". The slab must be free from any non-compatible contaminants or foreign materials such as sealers, curing compounds, waxes, oils, paint, dust, or drywall compounds, that might prevent adhesive bond. If your project needs a leveling compound, contact your adhesive manufacturer for a recommended leveling/patch product.

Additional concrete subfloor preparation information can be found in the NWFA's Installation Guidelines.

### **Glue Down Installation – Engineered Flooring ONLY**

Installation of the flooring should follow the NWFA's Installation Guidelines. For a copy of their guidelines, visit [www.nwfa.org](http://www.nwfa.org). In addition to their guidelines, these below points should be followed.

Naturele Elegance engineered flooring can be glued directly to concrete sub-floor or wood sub-floor, on the ground floor and second floor or below grade. Not to be installed over vinyl. Ensure subfloor is suitable and properly prepared per subfloor preparations noted above. Verify moisture content is within allowable guidelines.

Maintain proper expansion space when installing the flooring. Use an adhesive specially designed for wood flooring installation. Recommend Solvent or Modified Silane based urethane adhesives: (ie; DriTac Crush, Pallmann P5, P7 or equivalent.) Follow the installation procedure recommended by the adhesive manufacturer including 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. Use proper cleaners for the glue type selected to ensure that no glue or adhesive residue is left on the finished flooring after installation. The use of flooring straps is recommended vs the use of tape on the surface to hold planks together while the adhesives dry.

Only spread enough glue to install what can be set in within the working time of the adhesive. Planks can be set directly into wet glue. Use a 100-150 lb roller if suggested by the adhesive manufacturer. Keep the floor free from foot traffic for a minimum of 24 hours.

### **Floating Installation – Engineered Flooring ONLY**

Installation of the flooring should follow the NWFA's Installation Guidelines. For a copy of their guidelines, visit [www.nwfa.org](http://www.nwfa.org). In addition to their guidelines, these below points should be followed.

Naturale Elegance engineered flooring is suitable for floating installation at any grade level. Engineered wood flooring may be floated over most subfloors. Ensure subfloor is suitable as described in the corresponding subfloor preparation section above. Verify moisture content is within allowable guidelines. For floating floor installation method, all substrates should be flat to within a minimum tolerance of 1/8" in 6' or 3/16" in 10'.

Install a floating hardwood floor underlayment (DriTac 8302 Double Impact or equivalent). Butt edges and do not overlap joints. If the pad does not include an attached tape, tape all joints using a waterproof tape with no wrinkles. Never mechanically fasten the isolation barrier with screws, nails, or staples as this will severely diminish the acoustical values of the barrier.

Maintain proper expansion space when installing the flooring. The use of a T&G adhesive (Pallmann P13 T&G adhesive or an equivalent D3 rated PVA adhesive) can be used at the joints of the flooring. Apply to the inside bottom edge of the end groove and side groove. Use a pull bar to tighten end joint and knocking block for the side. Do not use a mallet to strike the flooring as this can damage the edges of the finished product. The use of flooring straps is recommended vs the use of tape on the surface to hold planks together while the adhesives dry.

Once entire surface is covered, remove the expansion spacers and straps and install moldings to cover expansion joints, making sure to not fasten moldings to the flooring. After installation, keep the floor free from foot traffic for a minimum of 24 hours.

### **Radiant Heat for Engineered Flooring**

Naturale Elegance engineered hardwood products (**EXCLUDING HICKORY PRODUCTS**) can be installed over radiant heat systems that are approved for hardwood flooring installations. The only installation methods that would be recommended over a radiant heat system would be Full Spread Glue Down installation or Glue Assisted Nail Down installation (if allowed by the radiant heat manufacturer). Do not float any Naturale Elegance Flooring over a radiant heated floor.

In addition to the specific radiant heat manufacturers installation instructions, Naturale Elegance suggests the following:

1. A whole house humidification system be installed, functional, and in use prior to installation and throughout the life of the floor.
2. A temperature and relative humidity recording device be installed, functional and operational throughout the life of the floor.
3. Specific radiant heat manufacturer installation instructions must be followed precisely. If manufacturer's installation instructions do not specifically outline a detail, default to NWFA installation guidelines on Radiant Heat Installations.
4. The maximum temperature of the subfloor and surface of the flooring should not exceed 80°F.
5. Before installation of hardwood floor, the heating system must be operated at normal living temperature for a minimum of 14 days. One or two days before the flooring is to be laid, switch off the radiant heating system. Keep in mind, you will need to maintain a 60°- 80°F air temperature during the installation which may require a supplemental heating source during the installation.

Radiant heat subfloor systems are excellent systems designed specifically to have slight and gradual changes in temperature. A gradual change in temperature of five degrees should take place over a 24 hour period. Sudden and drastic changes in temperature and relative humidity can and will have serious consequences to the look and structure of hardwood flooring. Exposure to temperatures and relative humidity outside of the specific ranges provided (60°- 80°F and 35% - 55% RH) can and will have similar consequences to the structure and look of the floor.

Need to Contact Us? You can contact us at:

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