

# Cordalera Lakes Collection Installation Instructions

Please Read Before Installing - This information will ensure a proper installation and help you avoid issues that could arise if you do not read all the instructions.

## Preparation

### **COLOR VARIATION**

This flooring is a natural product and color variations are to be expected. For best visual effect, combine planks from several cartons and do not install boards varying greatly in color next to one another. Dry rack the material with 3-4 cartons and make sure that the homeowner/end user approves the material before installing the floor. Once a floor is installed it is deemed acceptable and will not be warranted for any color variation, texture, gloss, finish claims. Always install the floor when the homeowner/end user is present.

### **ACCLIMATION**

As relative humidity varies in different parts of the country, acclimation of the flooring prior to installation is of the utmost importance in order to insure a successful installation. Proper acclimation is necessary to adapt the moisture content of the flooring to the conditions of your environment. Improper acclimation can cause the floor to buckle and/or the boards to shrink or cup after installation.

### **SUBFLOOR PREPARATION**

Subfloor must be level, dry and free of imperfections. An uneven subfloor will make the floor feel unstable and cause premature damage.

READ THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING INSTALLATION. IN ADDITION TO THESE INSTRUCTIONS, WE RECOMMEND THAT THE INSTALLER FOLLOW ALL INSTALLATION GUIDELINES SET BY THE NATIONAL WOOD FLOORING ASSOCIATION. [www.nwfa.org](http://www.nwfa.org)

### **FLOORING INSPECTION**

Responsibility for the suitability of manufacturing flooring and accompanying products for each individual installation cannot be assumed by Manufacturer, since Manufacturer has no control over the installer's proper application. Should an individual plank be inconsistent as to appearance or dimension the installer should not use this piece.

MANUFACTURER will send a replacement in a timely fashion.

### **JOB SITE REQUIREMENTS**

Manufacturer/distributor cannot be held responsible for site conditions. Carefully examine the flooring prior to installation for grade, color, finish and quality. Ensure adequate lighting for proper inspection. If flooring is not acceptable, contact your supplier immediately and arrange for replacement. Manufacturer/distributor cannot accept responsibility for flooring installed with visible defects. Prior to installation of any flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. Manufacturer is not responsible for flooring failure resulting from unsatisfactory jobsite

and/or subfloor conditions. Flooring should be one of the last items installed in any new construction or remodel project. All work involving water or moisture should be completed before flooring installation. Water and wood do not mix. Installing flooring onto a wet subfloor will most likely cause cupping, tip & edge raising, telegraphing of core and subsequent gapping. Room temperature and humidity of the installation area should be consistent with normal, year-round living conditions for at least one week before delivery of flooring. Optimum room temperature of 70 °F and a humidity range of 30-50% is recommended during installation. Humidity levels below 30% will most likely cause movement in the flooring, including gapping between pieces and possible cupping and checking in the face. Store the flooring in the installation area for at least 72 hours before installation to allow flooring to adjust to room temperature. Do Not store the boxes of flooring directly on concrete. These floors need adequate acclimation for moisture equalization prior to installation. Shuffle the boards for the best visual mix of lengths and color.

### **SUBFLOOR REQUIREMENTS**

All Subfloors must be:

- Dry and will remain dry: Subfloor must remain dry year-round. Moisture content of wood sub floors must not exceed 11%. Concrete must be tested for moisture content using the Anhydrous Calcium Chloride test method, a noninvasive moisture meter, or a pin/probe moisture meter.
- Structurally sound
- Clean: Thoroughly swept and free of all debris (If being glued down, subfloor must be free of wax, grease, paint, sealers, & old adhesives etc., which can be removed by sanding)

- Level: Flat to 3/16" per 10-foot radius  
Wood subfloors must be dry and well secured. Screw every 6" along joists to avoid squeaking. If not level, sand down high spots and fill low spots with a Portland Based leveling patch. Concrete subfloors must be fully cured, at least 60 days old, and should have minimum 6-mil polyfilm between concrete and ground. Subfloor should be flat and level within 3/16" per 10' radius. If necessary, grind high spots down and level low spots with a Portland leveling compound.

All concrete should be tested for moisture prior to installation using the Anhydrous Calcium Chloride test method, a noninvasive moisture meter, or a pin/probe meter. When using a Calcium Chloride Test, the result must not exceed 3 lbs per 1000 sq. ft. in a 24 hour period. A moisture test must be performed to ensure that the concrete slab is dry. Remember, a concrete slab on/below grade that measures dry today may become moist in the future due to rising groundwater. Installing a moisture barrier now may be viewed as an insurance policy against concrete becoming wet in the future.

\*Manufacturer is not responsible for site related moisture issues.

\*For additional protection, you may want to consider applying a moisture barrier compound system. A recommended system is Forteko p220 or skanteko P1000. 1 Coat for plywood and 2 coats for concrete.

# STARTING FLOOR INSTALLATION

Make sure the subfloor is tested for moisture first and is properly prepared. We Recommend using liquid moisture barrier PU280 for all installations as Cordalera Lakes Collection requires glue assist or full spread installations.

Since natural flooring expands with any increase in moisture content, always leave at least a 3/8" expansion space between flooring and all walls and any other permanent vertical obstructions, (such as pipes and cabinets). This space will be covered once the installer reapplies base moldings around the room. Use wood or plastic spacers during installation to maintain this 3/8" expansion space. Work from several open boxes of flooring and "dry lay" the floor before permanently laying the floor. This will allow you to select the varying grains & colors and to arrange them in a harmonious pattern. It also allows you the opportunity to select very dark/light pieces for use in hidden areas in order to create a more uniform floor.

Remember, it is the installers' responsibility to determine the expectations of what the finished floor will look like with the end user first and then to cull out pieces that do not meet those expectations.

Begin installation next to an outside wall. This is usually the straightest and best reference for establishing a straight workingline. Establish this line by measuring an equal distance from the wall at both ends and snapping a chalk line. The distance you

measure from the wall should be the width of a plank plus about 3/8" for expansion space. You may need to scribe cut the first row of planks to match the wall in order to make a straight working line if the wall is out of straight.

You may want to dry lay a few rows, (no glue or nails), before starting installation to confirm your layout decision and workingline. When laying flooring, stagger end joints from row to row by at least 8". When cutting the last plank in a row to fit, you can use the cut-off end to begin the next row. If the cut-off end is 8" in length or less, discard it and instead cut a new plank at a random length and use it to start the next row. Always begin each row from the same side of the room. To draw planks together, always use a tapping block (or a short piece of flooring), as tapping the flooring itself will result in edge damage. For best results, flip the tapping block upside down and use the groove edge to tap the tongue edge of the plank being installed. Fit end joints tightly together before tapping long edges together. When near a wall, you can use a pry bar to pry close the side and end joints. Take care not to damage edge of flooring. **DO NOT ADHERE TAPE OF ANY KIND TO FLOORS - IT CAN BOND OVER TIME.**

## **INSTALLATION OVERVIEW**

Before you begin using the following instructions, please refer to the Pre-Installation Job Prep information above.

NOTE: Our products are not warranted against squeaking, popping or crackling when using staple-down or nail-down installation methods. Some squeaking, popping or crackling is normal and possible when using staple-down or nail-down installation methods. These symptoms may

be aggravated in arid areas or during dry conditions.

## **NWFA INSTALLATION PROCEDURES TO FOLLOW DURING INSTALLATION**

### Part I: Acceptable Jobsite Conditions and Jobsite Checklist

A. Refer to NWFA Installation Guidelines Chapter 1, Jobsite Conditions.

### Part II: Acclimation Guidelines

A. Refer to NWFA Installation Guidelines Chapter 2, Acclimation and Conditioning of Wood Flooring.

### Part III: Appropriate Grade Levels

A. Engineered wood floors can be installed successfully on, above or below grade level. Engineered wood floors can be installed directly to a concrete or wood subfloor.

B. The entire flooring level is considered to be below grade where soil is present along any perimeter wall and is more than 3" above the installed wood flooring level. Ground should be sloped away from the house for proper drainage. (Check local building codes. Local building codes prevail. Follow local building codes.)

### Part IV: Subfloors – Wood Joist Systems

A. Refer to NWFA Installation Guidelines Chapter 4, Wood Subfloor Guidelines.

### Part V: Subfloors – Concrete Slab

A. Refer to NWFA Installation Guidelines Chapters 5, Concrete Subfloor Guidelines, and Chapter 6, Installing a Subfloor Over Concrete.

## **NAIL DOWN WITH GLUE ASSIST**

Set Up and Use of Pneumatic Staplers and Nailers: Minor occasional noises within the flooring are inherent to all staple/nail-down installations and can change as environmental changes occur. This is not a manufacturing defect and is therefore not covered under our warranties. You can help reduce squeaking, popping, and crackling by being sure that the subfloor (Page 2) structurally sound, does not have any loose decking or joists, and is swept clean prior to installation. You should also be sure that your stapler or nailer is setting the fastener properly, not damaging the planks, and that you are using the correct nailing schedule. When used improperly, staples or cleats can damage wood flooring. If the tool is not adjusted properly the staples/cleats may not be positioned at the proper angle and cause blistering, peaking, squeaking, or crackling of the floor. Some models may require the use of an adapter to adjust for proper thickness. Test the tool on a piece of scrap material first - set the stapler/ nailer flush on the tongue side of the plank and install a staple/cleat. During installation of the wood you can then run a minimum 1/4" bead of approved adhesive (i.e. MS-262 in a caulking tube) every 12" on center perpendicular to the direction of the wood. Use a normal nailing pattern for the dimensions of the wood installed per NWFA installation procedures.

Be sure not to overdrive the fastener past the nail slot, this can lead to a condition known as a telegraphing fastener. A telegraphing fastener is the visible effect of excessive pressure being placed on the wood fibers which causes the appearance of a bump to occur just above the fasteners.

This condition becomes most apparent when natural or artificial light reflects across the surface of the floor causing the bump to become visible to the eye. This condition can sometimes be difficult to see, so make sure to thoroughly examine the first few rows of flooring to make certain telegraphing does not exist. The manufacturer does not warrant against this condition since telegraphing fasteners are not manufacturing related. If you should encounter this condition immediately stop the installation and contact your local distributor or manufacturer of the nailer for technical advice. It is essential that the flooring installer make sure that the nailer/stapler is properly adjusted for the particular floor that is being installed i.e. the fastener(s) MUST enter the nail slot at the correct angle and height, do not overdrive the fastener(s) so as not to cause damage to the board e.g. telegraphing fasteners, broken or split tongues, peaking, squeaking, or crackling noises to occur.

#### **NAIL DOWN/GLUE ASSIST PROCESS**

1. Use Liquid moisture barrier like Wakol P1000 from Skanteko or P220 from Forteko.
2. Snap a working line parallel to the starting wall, allowing expansion space as specified by the manufacturer.
4. Put glue on the back of the board on the first row prior to putting the wood on the floor
5. Lay one row of plank along the entire length of the working line.
5. 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 and glued with strips/lines of glue using Skanteko s30 or Forteko s220 every 12" wherever possible.

- A. Typical: Narrow crowned (under 3/8") 1"-1½" 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 fasteners 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 at least three times the width of the boards, as product allows.

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.

#### **FULL SPREAD INSTALLATION**

You must account for moisture in any installation. Consult the manufacturer or the NWFA for concrete installations. For installations over a subfloor, prime the floor with an approved adhesive primer with moisture vapor retarder. This will increase adhesion and provide the proper moisture transfer from the subfloor. Use an approved hardwood flooring adhesive for the width to be installed with the proper trowel for the material to be installed. Follow adhesive manufacturers' installation procedures.

## **FULL SPREAD INSTALLATION PROCESS**

There are several different ways to start the installation of glue-down engineered wood flooring. The following has proven successful.

1. Test the substrate for moisture according to appropriate moisture testing procedures in Chapter 3, Moisture Guideline and Vapor Retarders. 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. We recommend using Forteko P220 or Skanteko P1000 moisture barrier even if glue is moisture rated.
2. Expansion space should be left around the perimeter in accordance with the manufacturer's recommendation.
3. Snap a working line parallel to the starting wall, the width of the board, plus the tongue and recommended expansion space.
4. 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.
5. Follow manufacturer instructions for tongue and groove direction and placement.
6. Use an adhesive (i.e. T200 from Skanteko) that is approved by the flooring manufacturer (listed at the end of this document. 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.

7. 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 planks wider than 5".
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.

## **FLOATING METHOD**

1. Subfloor flatness is critical to the success of a floating floor installation. (Refer to NWWFA Installation Guidelines 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, Moisture Guideline and Vapor Retarders. Excessive/elevated moisture should not be present. The subfloor should be within acceptable moisture content as per manufacturer recommendation before installing.
3. If necessary, add a vapor retarder. (Refer to NWWFA Installation Guidelines Chapter 3, Moisture Guideline and Vapor Retarders, Part III, Acceptable Vapor Retarders Over Wood Subfloors.)
4. Expansion space should be left around the perimeter or in accordance with the manufacturer's recommendation.

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

6. Typical: Floating engineered flooring is edge- glued (TG400 from Skanteko) or edge-attached with a self-locking mechanism. a. For edge-glued products, use a glue approved by the flooring manufacturer. b. Apply glue at the spread rate to the side grooves and/or ends as recommended by the flooring manufacturer.

7. Starter boards should be aligned with the groove side and end against the starting wall. Tapping blocks should be used against the tongue only.

8. Stagger end joints per manufacturer's recommendation.

### **AFTER INSTALLATION**

Flooring should be one of the last items installed in a project. In order to protect the floors while other trades are finishing their work prior to final cleanup and turnover to the owner, use rosin paper. DO NOT use Blue Tape to adhere to (blue tapes may damage the finish). Clean the floor thoroughly before laying the rosin paper to ensure that nothing is underneath. DO NOT USE plastic film or other non-breathing coverings as this can cause the floor to become damaged from humidity buildups

Remove expansion spacers and reinstall base and/or quarter round moldings to cover moldings to cover the expansion gap.

Dust mop or vacuum your floor to remove any dirt or debris. • Install any transition pieces that may be needed (reducers, T-moldings, nosing. etc.).

If using a glue-down method, do not allow foot traffic or heavy furniture on the floor for 24 hours. Optimum Recommended Temperature is 70°F and relative humidity is 30% - 50%. In very dry climates, the use of a humidifier might be necessary.

Photosensitivity: Hardwood floors are photosensitive and will change color as they age or are exposed to U.V. light. In some species the natural pigmentation will be lost and can develop a "bleached" appearance. As this is a natural occurring phenomenon, accelerated with exposure to U.V. light, it is not considered a material defect and excluded from coverage under the provisions of Manufacturer's Limited Warranty.

### **MINIMIZE FADING & DISCOLORATION**

- Avoid rubber-backed mats and rugs, as the backing may discolor your floor.
- Change the location of your rugs periodically. Rearrange more frequently if they are placed in front of doors and windows.
- Use light filtering window treatments (i.e. blinds, drapes, window film) that will help prevent sunlight exposure.
- Rearrange furniture seasonally to allow the flooring to darken and age uniformly.

### **OTHER NOTES**

If completing a flooring extension or board replacement after the original installation has been down for a period of time, the new flooring will have a lighter appearance. As the material is exposed to natural light, it should eventually blend in with the surrounding areas. However, due to the age

of your flooring, surface wear (and/or) exposure to U.V. light, Manufacturer cannot guarantee replacement flooring will be a 100% match to your existing product. Remember that color variation is to be expected with natural products. However, should an individual plank be inconsistent in appearance or dimension the installer should not use this piece.

Follow the instructions on this installation guide as well as the guidelines listed out by the NWFA.

For further detailed installation guideline, please refer to NWFA ([www.nwfa.org](http://www.nwfa.org))

Installation instructions may be adjusted over time and should be verified with instructions available on [www.cordalerafloors.com](http://www.cordalerafloors.com) to ensure the most recent version is being used.

## **PROTECTION AND MAINTENANCE OF YOUR FLOOR**

Lasting beauty can be achieved through purchasing a quality floor covering and providing proper on-going maintenance.

**Fading:** Natural floors contain organic pigments and are subject to fading when exposed to direct sunlight. Where possible, use drapes or other systems to protect your floor from excessive light.

**Joints:** Natural flooring reacts to the conditions in the environment. Natural flooring plank systems expand and contract in response to fluctuations in temperature and humidity. Controlling the environment, maintaining an adequate temperature and relative humidity will minimize the visible effects of normal contraction and expansion

## **APPROVED MATERIALS NEEDED**

- Forteko & Skanteko Products
- G220
- T200
- S30
- S220
- P220
- P1000
- TG400

Updated List will be located at [www.cordalerafloors.com](http://www.cordalerafloors.com)

Any substitutions must be approved prior to installation from Cordalera Floors.