



Congratulations on your purchase of a Green Choice Riviera Hardwood floor! We take great pride in our products and are grateful that you have decided on our hardwood flooring for your project. Our Riviera Collection of flooring products are both beautiful and durable and are covered by industry standard warranty coverage.

Please read the following instructions prior to installation to ensure that your Riviera Hardwood floor will provide years of beauty and durability in your home or commercial space.

Once you begin installation, it will be understood that ALL pre-installation instructions and requirements have been read and accepted.

ATTENTION: These guidelines presented are **NOT** a replacement for a licensed and insured NWFA installation. These are strictly guidelines as they relate to our flooring. We recommend installation by an insured and licensed installer, preferably from the National Wood Flooring Association (NWFA). Unless otherwise specified, Green Choice Riviera Hardwood floors must be installed in accordance with the most current NWFA installation guidelines at the time of installation for Green Choice Riviera Collection Warranty to be valid.

If you have questions regarding your Green Choice Riviera Hardwood purchase, please contact us at 866-915-1120 or at sales@greenchoiceflooring.com.

PRE-INSTALLATION

Successful installation depends largely on proper jobsite preparation. Green Choice Riviera Hardwood cannot be held responsible for jobsite conditions. Your expert installer should evaluate your site prior to the wood being delivered. They will evaluate and correct any site or subfloor that might possibly affect installation. Also, wood flooring will function at its best if installed in an environment kept at a 35%-55% humidity level and temperatures between 65 and 80 degrees. These climate conditions must be maintained at least three days before installation, during installation and then for the life of your floor. Your flooring should not be delivered or installed until these conditions have been met and maintained for at least 3 days. Dehumidification/humidification may be necessary to maintain these levels and failure to comply could void warranties or result in structural damage to the wood in the form of cracks, cupping, gaps and splits.

Green Choice Riviera Hardwood is approved for on-grade and above grade installation. We do not recommend below grade as that usually requires a "floating floor" application, which we do not recommend with this flooring.

We also recommend that the owner remove all valuables from the area of installation, including but not limited to artwork mounted on walls, fragile decorations and other personal items.

Another recommendation is that the flooring installation be one of the last jobs performed in the project and that all “wet” work is done and completely dry, i.e. drywall, dry wall taping and painting, prior to installation.

It is the responsibility of the installer and the owner to inspect all flooring prior to installation. All flooring should be examined for manufacturing quality, finish, grade, and character/color acceptance. If any of these items are questioned, material should not be installed and the sales representative should be contacted.

The direct use of a mallet or other tool on the face or edges of flooring will cause damage to the finish and/or the edge of flooring. Straps, clamps, or tapping blocks are required.

SUBFLOORS

The subfloor condition is critical to a successful installation of Riviera Hardwood. They must be structurally sound, clean and free of debris, nails, staples and any type of paint, sealer, wax, grease or old adhesives.

Subfloors that are acceptable for Riviera Hardwood are CDX plywood and OSB and concrete. The wood subfloors must be clean, dry and well secured. It's best if they are nailed or screwed down every 6 inches along the joists to reduce squeaking. They also need to be level within 1/8" in 6' or 3/16" in 10'; either sanded down on high spots or filled with a leveling compound in low spots.

Concrete subfloors also must be clean and free of debris and paint, wax, grease, sealer and old adhesives. If any of these contaminants are present, the concrete should be ground or sanded. New concrete subfloors must be cured for 60-80 days prior to installation. Riviera Hardwoods should not be installed over concrete unless the concrete will remain dry at all times.

SUBFLOOR MOISTURE TESTING REQUIREMENTS

Making sure of the moisture level at a jobsite is critical to a successful installation. Just visually checking it is not reliable. If the moisture level is not at acceptable levels, the source of the moisture must be found and corrected before the wood is delivered to the jobsite. Consult your flooring experts as to the methods of moisture testing that are acceptable.

We recommend the Calcium Chloride test for concrete. The moisture should not exceed 3lbs per ASTM F1869 Calcium Chloride test.

For plywood subfloor, a Tramex or other NWFA approved type of moisture meter is recommended. Installation should only occur over a wood subfloor when the difference is no greater than 4% between the sub floor moisture and the moisture content of the flooring. Plywood subfloors are recommended to be 3/4" x 48" x 48" with a 1/8" gap between panels for expansion.

Installers should document the average moisture content of the flooring (40 readings per every 1,000 sf) and the subfloor (3 per 1,000 sf) as well as 1 reading per every additional 1,000 sf of concrete and 20 per additional 1,000 sf for wood subfloors.

Green Choice Flooring does not accept responsibility or warrant any issues that may arise from too little or excessive moisture, regardless of the source.

ARRIVAL OF FLOORING TO THE JOB SITE

Once the Riviera Hardwood Flooring has been delivered to your job site, there are certain mandatory steps to take that ensure your installation will be successful. These steps include, but are not limited to the following:

1. **Product inspection and acceptance:** Riviera Hardwood is a product of nature and the naturally occurring differences could mean color and grade variations, milling and general cutting waste, finish imperfections. These differences fall in line with an industry accepted rate of 5% of the total flooring purchased. Material that has been wire-brushed will show to some degree torn or rough grain and/or splintering on board surfaces and edges. This is accepted, up to 5%, as previously mentioned. The use of a buffer or other method to remove loose fibers is considered normal and is to be expected, as are minor touch up's on boards over the life of your floor. This buffing and touch up work after installation will remove the majority of these normal wire brush characteristics, but not all, and are not a defect covered by Green Choice warranty. Color coordinated putty, filler sticks, or similar products are an acceptable maintenance technique for the installation or maintenance post installation of a hardwood floor and is to be expected.
2. It is the responsibility of the Owner/Purchaser and Installer, by randomly inspecting boards from 2-3 cartons, that the flooring delivered is what was expected BEFORE proceeding to the installation. If the flooring IS NOT what was inspected, do NOT continue opening cartons and do not discard cartons that have already been opened. Immediately notify your Riviera retailer where you purchased the flooring that there is a problem with your delivery. After determining that it is the correct flooring, the installer should use reasonable selectivity and continue to inspect each piece in order to hold out or cut off any piece with flaws that fall within manufacturing tolerances, whatever the cause. Green Choice cannot honor claims due to lack of proper inspection or installation of clearly defective planks of Riviera Hardwood.
3. Once the flooring has been delivered to the project site and has been inspected and accepted, the cartons must be stored on a dry, flat surface in the area it will be installed. Remove the plastic wrapping, if any, but leave the cartons unopened until ready to installation and then open only as needed. Make sure there is good air flow and the temperature remains consistently between 65 and 80 degrees F and a humidity of 35-55%. Do not store directly on concrete, in garages, basements, exterior patios, near outside walls or anywhere the temperatures cannot be controlled. Boxes of flooring material should not be placed in direct contact with the subfloor - create an air space between boxes and subfloor and cross stack boxes. Green Choice cannot honor warranties if the hardwood is damaged due to improper storage at the site. This acclimation process needs to occur so that the flooring reaches a moisture content equilibrium with the surrounding area in which it will be eventually installed. The moisture content must test within 4% of the subfloor before installation can begin. Do not open the delivered cartons until the day the installation begins. Acclimation should take place for a minimum of 3 days. The required temperature and humidity levels must be maintained for the life of the floor installation.
4. Proper acclimation of Riviera Hardwood flooring is one of the most important steps to a successful installation with minimal normal expansion and contraction. Failure to acclimate properly can cause the floor to buckle, boards to shrink, gap, cup, split, or show checks after installation. The worst thing for the floor to be stored in an uncontrolled setting and then installed immediately.

5. The Installer should document that all pre-installation requirements have been met before proceeding to installation. The moisture testing results, using photos to document location, date and time and initials of the installer should be kept by the Owner for future reference if needed.

6. It is highly recommended by Green Choice to keep at least 2 boxes of flooring per 1,000 sf in the case of future repairs. Additional material for repairs are not guaranteed to match original flooring and difference in material is not covered under warranty. It is also recommended to consider 8% for cutting waste. Patterns will require a higher waste percentage.

INSTALLATION

(Note-Installation constitutes acceptance of the hardwood product and assures all pre-installation requirements have been met!)

For best results, Green Choice recommends that its hardwood flooring be installed by a NWFA certified professional installer. These certified installers should be able to provide a period of warranty for their installation work. Installation related failures are not covered by the manufacturer warranty.

Preparing for Installation

The Owner/Purchaser in conjunction with the Installer should decide together which direction the planks should run prior to beginning installation. If over a traditional subfloor, Green Choice recommends flooring be installed perpendicular to floor joists. A random appearance created by staggering plank and joints is suggested for an aesthetically pleasing look...also the decision of the Owner/Purchaser and the responsibility of the Installer.

Another important recommended technique is to blend planks from different cartons in order to get a desirable mixture of shades and colors throughout the installation area.

Starting Installation

Gathering tools needed for installation is a good place to start so everything you need is available when needed. Tools generally required include hand or power saw, hammer, crowbar or pull bar, tape measure, pencil, chalk line, wood or plastic spacers, tapping block, carpenter square, adhesive trowel and a quality adhesive approved for hardwood flooring.

Using the outside wall as your reference point is a good plan as it is considered the straightest wall in the room. Establishing a straight working line using the outside wall and snapping a chalk line is the best way to start.

Remove door thresholds and base moldings and replace them after installation. Notch out or undercut door casings to fit the flooring thickness. To measure the height, lay a plank on the subfloor and use it's height as a guide.

Measure from the wall across the plank and add ½ inch expansion allowance when establishing your working line. It's wise to dry layout 2-3 rows of planks prior to installing to confirm your directional layout decision and determine if the working line is correct. To maintain the ½ in expansion space, use wedges up against the wall.

INSTALLATION METHODS

Nail Installation

All pre-installation testing and preparation must be completed before proceeding. An acceptable subfloor for this type of insulation is CDX plywood that is at least 5/8" thick. This flooring can be installed over existing vinyl flooring if:

1. The subfloor is not OSB or particleboard
2. The subfloor is in good condition and is properly attached to the joists
3. The staple or nail penetration is not significantly lessened due to the thickness of the vinyl

The recommended nail or staple length is 1-½" or 2" with a 4-6" spacing along the length of the plank and 1" from each end. Staple or nail down the first row of planks with the groove facing the starting wall. Using a quality T&G glue product, glue the joint ends to give added strength and then use a tapping block to ensure a tight bond between the planks.

Keep checking as you go to remove any excess T&G glue or spills as this can damage the flooring finish. Failure to remove the glue will void the manufacturer warranty. Use a dry or slightly damp cloth to wipe up the excess or spilled glue. DO NOT use paint thinner or harsh chemical adhesive removers on the flooring as these will damage the finish and void the warranty.

If any plank is damaged in the process of nailing or stapling, pull it up and replace it with another plank before proceeding. Using planks damaged in the installation process will also void the warranty.

To maintain a desirable appearance, lay out several rows at a time before installing so you can be assured that joint ends are not too close together. A minimum of 10-12" between joint ends in adjacent rows is recommended. When the first section is completed, continue by repeating the process, checking plank alignment with the working line, section by section until completed.

When finished, remove the 1/2" spacers from the perimeter, install or reinstall base and/or quarter round moldings to cover the expansion space. Install the transition pieces such as reducer strips and T-moldings as needed. Clean and remove all dirt and debris from the floor by dry dust mopping. Follow your Green Choice Riviera Collection Floor Care and Maintenance instructions given to clean and ensure the long-lasting beauty of your Green Choice Riviera Hardwood Floor.

Glue Down Installation

All required pre-installation testing and preparation must be completed prior to installation. Acceptable subfloors for a glue down application are OSB, CDX plywood and concrete. The adhesive used must be a moisture cured polyurethane approved for hardwood flooring installation. The use of unapproved adhesives will lead to flooring failure and void the manufacturer warranty. Do not use water-based adhesives.

A cushioning underlayment can be used such as cork with trowel glue application adhering to that.

Follow the flooring adhesive instructions very carefully.

1. Always allow for adequate cross ventilation when working with flooring adhesives.
2. Allow proper set time before affixing the hardwood planks.
3. Use a spreading trowel recommended by the adhesive manufacturer.
4. Spread the adhesive per the adhesive instructions.

Holding the trowel at a 45-degree angle, spread adhesive as instructed by the manufacturer and start at the outside wall. Once adhesive has set, lay the first row of planks with the groove facing the outside

wall. When you are near the wall, use a pull or crowbar to close end joints. Use a hammer and tapping block to tap against the tongue side to pull planks together. NEVER tap against the groove side or the end joints as that will tend to damage the flooring finish and void the warranty.

Adhesive/masking tape applied directly to the hardwood finish can damage the factory finish and void the warranty.

As in other types of installation, use wood wedges at the wall to maintain a ½" expansion space. Rack out 3-4 rows at a time to develop a pattern where the joints are approximately 10-12" apart for a more pleasing, random look. Be careful not to shift the plank position on the wet adhesive. If needed, weights can be used to hold the planks in position and avoid any sliding.

As each plank is laid, check for excess adhesive or spills and immediately wipe it off with a clean dry or slightly damp cloth. Do NOT use paint thinners or harsh adhesive removing chemicals. Adhesives and adhesive removers can damage the finish if allowed to set too long and this will void the warranty.

As you complete the floor, keep checking plank alignment with the working line, section by section.

Do not allow foot traffic on your completed floor for at least 8 hours and allow a minimum of 24 hours before heavy furniture is moved onto the hardwood flooring.

When finished, removed the ½" expansion spacers. Install or reinstall base and/or quarter round moldings to cover the expansion space. Then install transition pieces such as reducer strips and T-molding as needed.

Clean and remove all dirt and debris with a dry mop. Follow the Floor Care and Maintenance instructions to ensure longevity and lasting beauty for your hardwood floors.

Installation over Radiant Heat

All required pre-installation testing and preparation must be completed prior to installation. If moisture problems were detected during the pre-installation phase, an approved moisture barrier must be in place.

Flooring failures due to improperly installed hydronic radiant systems are not covered by our manufacturer warranty. It is the Owner/Purchaser's responsibility to ensure that the radiant system has been installed according to the radiant heat manufacturer instructions and is working properly prior to installation.

With radiant heat, the heat source is directly under the wood so you run the risk of the wood drying out. Riviera Hardwood Flooring can be installed over radiant heat only if you understand that a humidification system is necessary to maintain the wood flooring in its required comfort zone. Engineered Oak is the only approved Riviera species to be installed over radiant heat at this time.

Important Notes:

- The floor warranty is void if the radiant heat is ever allowed to exceed 82 degrees measured on the floor.
- Hydronic based radiant heat systems only.
- It's highly recommended that there is a working external thermostat in each room so temperatures can be accurately controlled.
- Expect some cupping, gapping shrinkage during the heating season.

- Only use direct glue down on concrete if it has a minimum compressive strength of 3000 psi and that heating pipes are covered to at least 3 cm/2.5 inches from the surface
- Make sure the glue used with a glue down application is approved for radiant heat
- Beware that rugs/carpet can trap heat causing hot spots. Always determine floor temperatures independent from other sources so recommended levels are kept.

Prior to Installation

If the hardwood is to be installed on cement over the radiant heat, 7 days prior to installation no matter the season, turn the heat up to 70 degrees and leave it there. To acclimate the wood to this heated surface, do a dry layout in the room 24 hours before actually installing it.

If the radiant heat is under a plywood subfloor, use appropriate fasteners checking for clearance and thickness. Blind nail at a 45-degree angle into tongue. Use the appropriate fasteners for the subfloor and flooring thickness combination to avoid contact with the heating system.

Your pre-installation checklist should include the following:

- The radiant system is hydronic and is working properly
- The wood is engineered oak
- The exterior thermostat is installed
- A sensor is attached to the heating unit
- Radiant heat acclimation is complete
- There's a separate HVAC humidifier

Starting Installation

Gathering tools needed for installation is a good place to start so everything you need is available when needed. Tools generally required include hand or power saw, hammer, crowbar or pull bar, tape measure, pencil, chalk line, wood or plastic spacers, tapping block, carpenter square, adhesive trowel and a quality adhesive approved for hardwood flooring.

Using the outside wall as your reference point is a good plan as it is considered the straightest wall in the room. Establishing a straight working line using the outside wall and snapping a chalk line is the best way to start.

Remove door thresholds and base moldings and replace them after installation. Notch out or undercut door casings to fit the flooring thickness. To measure the height, lay a plank on the subfloor and use it's height as a guide.

Measure from the wall across the plank and add ½ inch expansion allowance when establishing your working line. It's wise to dry layout 2-3 rows of planks prior to installing to confirm your directional layout decision and determine if the working line is correct. To maintain the ½ in expansion space, use wedges up against the wall.

INSTALLATION METHODS

Staple/Nail Down Installation Over Radiant Heat

All pre-installation testing and preparation must be completed before proceeding. An acceptable subfloor for this type of insulation is CDX plywood that is at least 5/8" thick.

The recommended nail or staple length is 1-½" or 2" with a 4-6" spacing along the length of the plank and 1" from each end, keeping in mind the radiant heating system under the surface of your subfloor. Staple or nail down the first row of planks with the groove facing the starting wall. Using a quality T&G glue product, glue the joint ends to give added strength and then use a tapping block to insure a tight bond between the planks.

Keep checking as you go to remove any excess T&G glue or spills as this can damage the flooring finish. Failure to remove the glue will void the manufacturer warranty. Use a dry or slightly damp cloth to wipe up the excess or spilled glue. DO NOT use paint thinner or harsh chemical adhesive removers on the flooring as these will damage the finish and void the warranty.

If any plank is damaged in the process of nailing or stapling, pull it up and replace it with another plank before proceeding. Using planks damaged in the installation process will also void the warranty.

To maintain a desirable appearance, lay out several rows at a time before installing so you can be assured that joint ends are not too close together. A minimum of 10-12" between joint ends in adjacent rows is recommended. When the first section is completed, continue by repeating the process, checking plank alignment with the working line, section by section until completed.

When finished, remove the 1/2" spacers from the perimeter, install or reinstall base and/or quarter round moldings to cover the expansion space. Install the transition pieces such as reducer strips and T-moldings as needed. Clean and remove all dirt and debris from the floor by dry dust mopping. Follow your Floor Care and Maintenance instructions given to clean and ensure the long-lasting beauty of your Green Choice Riviera Hardwood Floor.

Glue Down Installation Over Radiant Heat

All required pre-installation testing and preparation must be completed prior to installation. Acceptable subfloors for a glue down application are CDX plywood and concrete. The adhesive used must be a moisture cured polyurethane approved for hardwood flooring installation over radiant heat. The use of unapproved adhesives will lead to flooring failure and void the manufacturer warranty.

A cushioning underlayment can be used such as cork with trowel glue application adhering to that.

Follow the flooring adhesive instructions very carefully.

1. Always allow for adequate cross ventilation when working with flooring adhesives.
2. Allow proper set time before affixing the hardwood planks.
3. Use a spreading trowel recommended by the adhesive manufacturer.
4. Spread the adhesive per the adhesive instructions.

Holding the trowel at a 45-degree angle, spread adhesive as instructed by the manufacturer and start at the outside wall. Once adhesive has set, lay the first row of planks with the groove facing the outside wall. When you are near the wall, use a pull or crowbar to close end joints. Use a hammer and tapping block to tap against the tongue side to pull planks together. NEVER tap against the groove side or the end joints as that will tend to damage the flooring finish and void the warranty.

Adhesive/masking tape applied directly to the hardwood finish can damage the factory finish and void the warranty.

As in other types of installation, use wood wedges at the wall to maintain a ½" expansion space. Rack out 3-4 rows at a time to develop a pattern where the joints are approximately 10-12" apart for a more

pleasing, random look. Be careful not to shift the plank position on the wet adhesive. If needed, weights can be used to hold the planks in position and avoid any sliding.

As each plank is laid, check for excess adhesive or spills and immediately wipe it off with a clean dry or slightly damp cloth. Do NOT use paint thinners or harsh adhesive removing chemicals. Adhesives and adhesive removers can damage the finish if allowed to set too long and this will void the warranty.

As you complete the floor, keep checking plank alignment with the working line, section by section.

Do not allow foot traffic on your completed floor for at least 8 hours and allow a minimum of 24 hours before heavy furniture is moved onto the hardwood flooring.

When finished, removed the ½" expansion spacers. Install or reinstall base and/or quarter round moldings to cover the expansion space. Then install transition pieces such as reducer strips and T-molding as needed.

Clean and remove all dirt and debris with a dry mop. NEVER steam clean a Green Choice floor. Follow the Green Choice Riviera Collection Floor Care and Maintenance instructions to ensure longevity and lasting beauty for your hardwood floors.