



Installation & Maintenance Guide

Read this guide before starting installation

Riverstone Rigid Core Vinyl (RCV) Vinyl Plank is a waterproof floor but should not be used to seal an existing floor from moisture. It cannot inhibit mold growth or prevent structural problems associated with or caused by flooding, excessive moisture, alkalis in the subfloor, or conditions arising from hydrostatic pressure. Regardless of location, always remove standing water and other liquids promptly. Moisture issues should be addressed and corrected at the job site before installation.

PRE-LAY CHECK

It is the installer's responsibility to verify the product is the correct product, color, pattern, and quantity. Check each board for visual defects before installation. Claims for flooring that has been cut to size and/or installed will not be accepted. LW cannot accept responsibility for flooring installed with visible defects. Color variations are to be expected. For the best visual effect, shuffle planks from several cartons during installation.

SITE CONDITIONS

The floor covering should be stored and installed in a climate-controlled location with a temperature between 60° - 80°F (- 15° - 27°C) or an average temperature of 70°F (21.1° C).

Acclimate for 48 hours. For acclimation, unopened cartons of flooring need to be lying horizontally in the room when acclimating. They do not need to be opened or the plastic to be removed. They need to lay (can be stacked) horizontally for 48 hours in a controlled environment. Humidity is maintained at or near normal living conditions, generally between 60° to 80° Fahrenheit and at the average yearly relative humidity for the area.

Installing a moisture barrier may prevent the floor from getting wet in the future. LW Flooring is not responsible for site-related moisture issues. For additional protection, consider applying a moisture barrier compound system.

SUBFLOOR PREPARATION

Before installing any flooring, the installer must ensure that the job site and subfloor meet the requirements of this instruction. As a floating floor, the floor can be installed over existing hard surface floor coverings, provided that the existing floor surface is clean, flat, dry, and structurally sound. No loose grout, tiles, or planks. Tile Grout maximum depth $5/64''$ (<math><2\text{ mm}</math>) below the tile surface. Do NOT install over existing hardwood. Moisture issues should be addressed and corrected at the job site before installation. Do NOT install over existing timber strip floors directly adhered to concrete or installed directly over timber bearers & joists. Installation is NOT allowed over any type of carpet.

The subfloor should be flat within 1/8" in a 6-foot radius or 3/16" within a 10-foot radius. The substrate should not slope more than 1" per 6 feet in any direction.

UNDERLAYMENT

The product has an attached pad, and using an additional underlayment that is more than 2mm thick will void the warranty. It is not approved. If you choose to use an additional underlayment, we recommend 1-2mm thick. Make sure to use an underlayment that is approved for use with floating LVP flooring and has a manufacturer's warranty regarding floating LVP usage.

CAUTION: Some types of nails, such as common steel nails, may cause discoloration of the vinyl floor covering. Solvent-based construction adhesives are known to stain vinyl floor coverings. LW Flooring is not responsible for discoloration problems caused by using the above-mentioned products.

Wood Subfloors

Do not install material over wood subfloors that lay directly on concrete or over-dimensional lumber or plywood used over concrete. Do NOT install over existing hardwood floors that lay directly on concrete. LW recommends checking wood substrates for moisture. Obvious signs of moisture issues include warping, peaking, degradation of substrate integrity, rusted fasteners, and rusted floor registers. Even if obvious signs are not present, the material should be tested using an invasive moisture meter, and moisture levels should not exceed 14%.

1. Do not apply sheet plastic over wood subfloors.
2. Basements and crawl spaces must be dry. The use of 6 mil black polyethylene is required to cover 100% of the crawl space earth. Crawl space clearance from ground to underside of the joist is 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.

Concrete Subfloors

LW recommends testing concrete substrates for relative humidity, moisture, and pH before installing LW RCV. Test results should not exceed 85% relative humidity (RH). The Calcium Chloride Test for the moisture should be no more than 8 lbs per 1000 SF in 24 hours MVER (Moisture Vapor Emission Rating), and pH tests for alkalinity levels should register between 6 and 9. **LW Flooring requires a 6 mil poly film when installing over concrete subfloors.**

Radiant Heat

Hydronic In-slab only must be cast ½" below the surface of the concrete slab and should be operating at least 2 weeks before installing LW RCV. Set the temperature of the radiant heating system to 65°F 72 hours before, during, and 72 hours after installation. The temperature of the radiant heat floor may be increased gradually 72 hours after installation, in increments of 5°F, but the surface temperature should never exceed 85°F. Contact the manufacturer of your radiant heating system for further recommendations.

Note: Follow and comply with various Federal, State, and Local government agencies' regulations governing the removal of in-place asbestos-containing material. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable regulations. Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos.

INSTALLATION PROCEDURES

LW RCV flooring is designed to be installed utilizing the floating method. Never secure the planks to the subfloor when using the floating installation method. Do not install cabinets or fixed objects on top of the flooring. Proper expansion space (5/16"), 8mm, is required. Undercut all doorjamb. Do not fasten wall moldings and or transition strips to the planks. Installation exceeding 82 feet in length and installation exceeding 49 feet in width require expansion trim.

LW RCV is designed to be installed utilizing the floating method on Plywood, OSB, Particleboard (PB), and Masonite. On, above, and below grade. Do NOT adhere to any tape on the face of the floor, as it will damage the finish. No claims will be processed for tape damage. Do NOT install over existing hardwood floors.

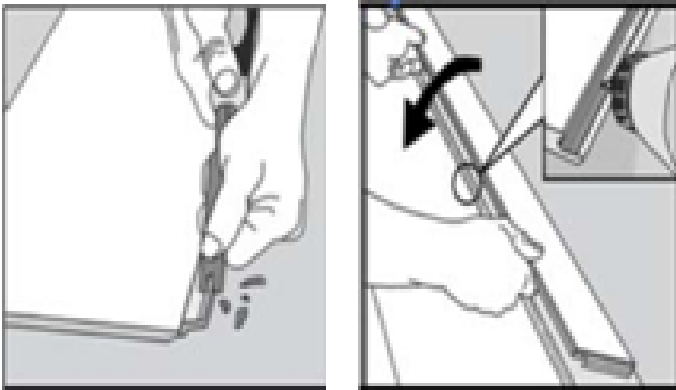
Note: RCV uses an angle-angle locking system, where planks are angled into the locking system and then dropped into place.

1. Plan the direction of the area to be installed to maximize the visual appearance once installed. The direction of the plank grain should be confirmed, and the installation should be balanced from the center of the area. Proper planning and layout will prevent having narrow plank widths at wall junctures or very short-length pieces at the end of rows. As with all plank products, install the planks parallel to the longest exterior wall.
2. Start from the top left corner of the room by putting the first plank in place so both the head and side grooves are exposed. Planks should be installed from left to right. To assist in laying the first row straight, using straps across each short-end locking system is recommended. Continue this for the first two rows and remove them after completion of installation.
3. Use spacers along the walls to maintain proper expansion space (5/16") and align the first plank. Determine if the starter row will need to be cut. If the first row of planks does not need to be trimmed in width, it will be necessary to cut off the unsupported tongue so that a clean, solid edge shows towards the wall.
4. Install the second piece in the first row by angling the end tongue into the end groove of the first plank. Be careful not to bend the corner of the plank. Maintain an expansion gap of 5/16" (6-8mm) from the wall.
5. Start the second row by cutting a plank to the desired length. Remember that the plank must not be shorter than 6" (15cm) to achieve the best appearance. Install the first plank in the second row by inserting the long side tongue into the groove of the plank in the first row. This is best done with a low angle of the plank. Maintain pressure on the side seam as you rotate the plank to the subfloor. Install the second plank in the second row by inserting the short-end tongue into the previously installed plank groove. Align the plank so that the long side tongue tip is positioned just over the groove lip of the plank in the first row. Working from the end seam at a low angle, insert the long tongue into the groove of the adjoining plank. Very little force is required to seat the tongue into the groove. You should feel the tongue lock into the groove.
6. Work across the room's length, installing planks along the wall in the first row and then aligning the planks in the second row. It is critical to keep these two rows straight and square, as they are the "foundation" for the rest of the installation. Cut the last plank in the first row and leave an expansion gap of 5/16" (6-8mm). Planks may be cut with a quality utility knife using the "score and snap" technique or saw. The leftover of this plank may be used to start the third row if it's a minimum 6" (15cm) long. Check often for squareness and straightness while installing the floor, as failure to do so can result in gapping.
7. Continue installing planks and ensure a random appearance with end pieces of a minimum of 6" (15cm). Check that all planks are fully engaged; if a slight gap is found, the gap can be tapped together by using a tapping block and a scrap of flooring to cover the tapping block to avoid damaging the planks. Do NOT tap directly on the seam.
8. When fitting under door skirting, if necessary, a flat pull bar may be used to assist in locking the planks.
9. When fitting around obstacles or into irregular spaces, planks can be cut easily and cleanly using a utility knife with a sharp blade or saw. It is often beneficial to make a cardboard template of the area and transfer this pattern to the plank.
10. Install wall and door moldings last. Protect all exposed edges of the flooring by installing wall molding and/or transition strips. Be sure that all moldings are fastened directly to the wall or subfloor. Do not place any fasteners through the floating vinyl flooring.
11. For wet areas such as bathrooms or laundries, caulk the perimeter of the floor with silicone suitable for wet areas.

REPAIRS

LW Flooring RCV Riverstone plank flooring is tough and durable; however, it can be replaced if a plank becomes damaged. If the damaged plank is damaged along the perimeter of the room, the easiest technique is to disconnect the planks until the damaged plank is removed. Replace the plank and reassemble the planks. If it is impractical to disconnect and reassemble the flooring, the following procedure should be followed:

1. It's recommended to use painter's tape along the sides of the board to be replaced to prevent damage to the adjoining boards.
2. Using a Utility Knife, cut through the middle of the damaged plank, running the length of the plank.
3. Carefully remove cut pieces from the insert. You can use a utility knife or chisel to remove the pieces from the floor. Clean up any debris from the opening area.
4. To prepare a replacement plank. Cut and remove the tongue from the long side and the short end of the plank. This can be accomplished by using a Utility knife.
5. Using a Utility Knife, remove approximately 1- $\frac{1}{8}$ " (35 mm) of the groove on the long side of the plank from the tongue end.
6. Apply a small bead of Super Glue (Ethyl Cyanoacrylate) or similar adhesive to the groove of the boards on the floor.



7. Insert replacement plank, locking the long side joint (groove side) into the existing floor.

NOTE: The Tongue end of the replacement plank will overlap the existing floor before being fully inserted.

8. Tap the groove end into place using a scrap piece of the plank as a tapping device. Insert the blade of a Utility knife on the opposite side to lift and adjust the end as it is being tapped into place. Place a weight on the plank until the adhesive sets, a minimum of 6-8 hours.

GENERAL MAINTENANCE

NEVER use wax or oil-based cleaning agents. All-purpose cleaners are not recommended; they can dull your floor's finish or leave a hazy residue.

- LW Flooring recommends Bona brand cleaning products, which are widely regarded as the best cleaning solution for urethane finish flooring.
- Sweep, vacuum, or dust mop regularly.
- Do not use steam cleaners or a wet mop to clean floors. "wet mop" is defined as "well submersed with fluid."
- Use walk-off mats at entrance doors and in front of kitchen sinks.
- Install proper felt protectors under the chair and furniture legs to prevent scratching.
- Roller or castor chairs should not be used directly on the floor surface as grit will build up under the wheels over time and become abrasive. Protective mats must be placed on the floor to protect the surface coating and to keep your floor looking good.
- Do not drag or push heavy items across the surface of the floor.
- Close curtains or blinds to limit direct sun exposure, which can cause discoloration and thermal expansion.