

DROP & LOCK GLUELESS FLOATING FLOOR INSTALLATION INSTRUCTIONS

ATTENTION! READ BEFORE INSTALLING!

COLOR VARIATION

This flooring is a natural product and color variations are to be expected. For best visual effect, shuffle planks from several cartons and **do not** install boards varying greatly in color next to one another.

ACCLIMATION

As relative humidity varies in different parts of the country, acclimation of the flooring prior to installation is the most important precaution to take in order to ensure 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.



If you have questions about this product, product warranty, or difficulties installing this product, call our **Technical Support** at **800-404-2675**.

INSTALLATION INSTRUCTIONS

READ THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING INSTALLATION. IN ADDITION TO THESE INSTRUCTIONS, WE RECOMMEND THAT THE INSTALLER FOLLOW ALL INSTALLATION GUIDELINES AS SET FORTH BY THE NATIONAL WOOD FLOORING ASSOCIATION. If the following instructions leave any unanswered questions or if additional information is required, please call USFloors toll free at .

FLOORING MATERIAL SHOULD BE INSPECTED PRIOR TO INSTALLATION

Responsibility for the suitability of drop & lock glueless floating flooring and accompanying products for each individual installation cannot be assumed by Shaw Industries, since Shaw Industries has no control over the installer's proper application. Should an individual plank be doubtful as to appearance or dimension the installer should not use this piece.

NOTE: Drop & Lock flooring may be installed with a direct glue-down method on approved wooden (or) concrete substrates that are on (or) above grade only. Use adhesives compatible with bamboo flooring. Please consult with the adhesive manufacturer to determine if suitable for use with this material.

PRE-INSTALLATION JOBSITE REQUIREMENTS

Shaw Industries 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.** Shaw Industries 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. Shaw Industries 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 can cause cupping, tip and edge raising, telegraphing of core and subsequent gapping.

Crawl spaces must be a minimum of 18" (46 cm) from the ground to the underside of the joists. A ground cover of 6–20 mil black polyethylene film is essential as a vapor barrier with joints lapped 6" (15 cm) and sealed with moisture resistant tape. The crawl space should have perimeter venting equal to a minimum of 1.5% of the crawl space square footage. These vents should be properly located to foster cross ventilation. Where necessary, local regulations prevail.

Room temperature and humidity of installation area should be consistent with normal, year-round living conditions for at least one week before installation 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. This includes gapping between pieces and possible cupping and checking in the face.

Store the flooring in the installation area for 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 and should **not** be installed from just-opened boxes. Shuffle the boards for best visual mix of lengths and color.

CAUTION: WOOD DUST

The International Agency for Research on Cancer has classified wood dust as a nasal carcinogen. The sawing, sanding, and/or machining of wood products can produce wood dust that can cause respiratory, eye, and skin irritations. Equipment should be equipped with a dust collector to reduce airborne wood dust. Wear an appropriate NIOSH designated dust mask to reduce exposure to airborne wood dust. Avoid contact with eyes and skin. In case of irritation, flush eyes or skin with water for at least 15 minutes. In cases of severe irritation; seek immediate medical attention. For further technical or installation questions or to request a Product Specification Data Sheet, contact the manufacturer.

WARNING: Drilling, sawing sanding or machining wood products can expose you to wood dust a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.

PRE-INSTALLATION 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%. For concrete subfloors, the maximum moisture level per CaCl test method is 3 lbs. per 1000 in 24 hr. Maximum level for ASTM 2170 In-situ Relative humidity test method - 75%
- Structurally sound
- Clean: Thoroughly swept and free of all debris
- Level: Flat to 3/16" per 10-foot radius

Wood subfloors must be dry and well secured. Nail or 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. Use cementitious patching and leveling compounds that meet or exceed maximum moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.

- ASTM F-2170 – in-situ relative humidity – 75% RH or less is acceptable. Readings greater than 75% RH require the use of a proper vapor retarder.
- ASTM 1869 - The moisture content for concrete subfloors registered after a calcium chloride test should **not** be greater than 3 pounds per 1000 square feet of area. If it exceeds these limits, **DO NOT** install the flooring. Before moisture testing begins, the slab must be cured for a minimum of 30 days.

If installing over ceramic tile, resilient tile or sheet vinyl, these must be well-bonded to the subfloor, in good condition, clean and level. **Do not** sand existing vinyl floors, as they may contain asbestos.

WARNING! DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVES OR OTHER ADHESIVES. These products may contain either asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for detailed information and instructions on removing all resilient covering structures. For current information go to www.rfci.com

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. Shaw Industries is **not** responsible for site related moisture issues.

For additional protection, you may want to consider applying a moisture barrier compound system.

INSTALLATION TOOLS

For all installation methods:

- Tape Measure
- Tapping Block
- Pencil
- Pry bar or pull bar
- Chalk Line
- Wood or plastic spacers (3/8")
- Crosscut power saw
- Painter's tape

Acceptable subfloor types (Note: Installation is **not** approved over existing carpet):

- CDX Underlayment Grade Plywood (at least 1/2" thick)
- Underlayment grade particleboard
- OSB (at least 3/4" thick)
- Concrete slab
- Existing wood floor
- Ceramic tile

- Resilient tile & sheet vinyl

FLOATING INSTALLATION

Make sure subfloor is tested for moisture first

Preparation:

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 out 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 working line. 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 position a few rows before starting installation to confirm your layout decision and working line. 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 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. When near a wall, you can use a pry bar to pry close the side and end joints.

INSTALLATION INSTRUCTIONS

Inspection: Prior to installation, inspect planks in suitable lighting for visible faults/damage. Check if subfloor/site conditions comply with the specifications described in these instructions. If you are **not** satisfied **do not** install, and contact Shaw Technical Support at .

Moisture Protection: Lay the PE film, allowing for at least 20 cm (8") overlapping and tape. Turn the film upward 5 cm (2") along the walls. Trim after the skirting boards are fixed.

Before Laying: Measure the room at right angle to the direction of the planks. For best visual effect, planks in the final row should be at least 2 inches wide (half width of plank minimum). For this purpose, planks in the first row can be cut to smaller size. Shuffle planks in order to obtain a pleasant blend of shades. Lay planks preferably following the direction of the main source of light. We recommend laying on wooden floors crossways to the existing floorboard. Planks must **not** be nailed or screwed to the subfloor. Base boards and molding must **not** be fixed in a way which restricts the movement of the floor.

Expansion Gaps: provide 3/8" (10 mm) expansion gaps to the walls and other fixed objects. Areas greater than 900 sq. ft. (100 m²) or 30 feet (10 m) in either direction, transitions between rooms, and asymmetrical areas require extra expansion gaps utilizing a T-Mold.

INSTALLING THE FIRST ROW:

1. Starting from the LEFT with the tongue facing the wall, carefully place the first board in place. Use spacers along the wall allowing required expansion gap (3/8" or 10 mm). (Figure 1)
2. Align the next piece by overlapping the end of the first board so that the joint is tight when the board lays flat. Some slight adjustment of the board may be necessary to assure a tight fit. Place spacers against wall to restrain movement and maintain expansion gap.
3. Continue in this manner until reaching the final plank in the first row.
4. Cut the final board piece to length allowing for the required expansion gap.
5. Place spacers against wall to restrain movement and maintain expansion gap.



Figure 1

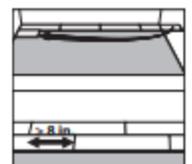


Figure 2

CONTINUING THE INSTALLATION:

1. Begin the second row with the cut piece from the first row. (Figure 2) If the cut piece is shorter than 8" (20 cm), **do not** use it. Instead, begin with a new board that is at least 8" in length and allows 8" between the end joints on the adjacent planks.
2. Position the first board in place by angling it up slightly, pushing forward and interlocking the side tongue. (Figure 3) Slide the board to the left as necessary to align the edges of the end joint.
3. Carefully push the board down until the tongue and groove lock together on the side and ends. (Figure 4)
4. A slight tap with a tapping block is necessary to complete the interlock.
5. Restrain the movement of the board by inserting a spacer in the expansion gap at the end of the board.
6. Install the remaining boards and rows in the same manner. (Figures 3 & 4)
7. Cut the last board to size allowing for the required expansion gap. Place spacers against wall to restrain movement and maintain expansion gap. If necessary, complete the tight fit by tapping the board into place with a pull bar.
8. Whenever practical, use cut pieces from previous rows as the starter board to reduce waste.
9. Maintain 8" spacing between end joints after the first four rows for best appearance.



Figure 3



Figure 4

INSTALLING FINAL ROW:

1. The last row may need to be cut lengthwise (ripped).
2. Place the last row of planks to be fit on top of the last row of installed planks. Use a piece of plank as a scribe to trace the contour of the wall.
3. Mark where the board will be cut. If the fit of the wall is simple and straight, simply measure for the correct fit and cut.
4. After boards are cut, position planks and tighten the fit using the pull bar.



Figure 5

INSTALLING UNDER A DOOR JAMB:

1. Installation under moldings (such as door jambs) may require that the top lip of the groove on the end be reduced in size
2. Using a small plane or knife plane, carefully shave off the ledge of the groove. (Figure 5)
3. After the groove ledge has been trimmed, place the board in place and tighten with a pull bar to test for fit. The installer must be sure that the required expansion gap has been maintained and the flooring is **not** pinched.
4. If fit is **not** correct, re-trim as necessary.
5. Place a bead of wood glue on the bottom lip of the groove.
6. Insert the tongue into the groove and tighten the fit with a pull bar. Hold the board in place with painters tape until the glue is dry. **Do not** use masking tape or duct tape as they may damage the floors finish.

IN-FLOOR RADIANT HEAT:

Flooring can be installed using the floating or glue down method. When gluing floor, follow the adhesive manufacturer's recommendations for proper application and recommended substrate.

- Turn the heat off for 24 hours before, during and 24 hours after installation when installing over radiant heated subfloors
- Failure to turn the heat off may result in shortened working time of the adhesive.
- Floor temperature must **not** exceed 85°F (30°C).
- Failure to strictly follow adhesive manufacturer's guidelines may result in failure and void warranty.

Warning: Heating mats work very well under carpet, tile and stone, however we do not recommend to have them placed directly underneath a wood, cork, or bamboo floor. It is best to install wood, cork, or bamboo flooring over embedded floor heating systems.

***This type of installation requires a specific construction of the plywood subfloor and the installer for such must be familiar with the NWFA recommendations.**

NWFA (National Wood Flooring Association) can be reached at 800-422-4556 U.S, or 800-848-8824 Canada.

GLUE DOWN INSTALLATION GUIDELINES

Additional tools & material needed: Urethane adhesive, Clean White Rags, Mineral Spirits/Urethane Adhesive Remover, Adhesive Trowel, and Straight Edge

NOTE: GLUE DOWN INSTALLATION METHOD REQUIRES THE USE OF SHAW 35MC OR COMPARABLE URETHANE ADHESIVE. REFER TO THE ADHESIVE LABEL FOR PROPER TROWEL REQUIRED, SPREAD RATES AND INSTALLATION APPLICATION INFORMATION!

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

GETTING STARTED

1. Select a starter wall. An outside wall is best: it's most likely to be straight and square with the room. Measure out from this wall, at each end, the width of two planks including the tongue plus the space needed (3/8" or 1/2") for expansion.
2. Snap a chalk line from these points, parallel to that wall.
3. Prior to installing the flooring, secure a straight edge inside the chalk line to act as a guide and to prevent the row of planks from shifting during installation. The straight edge could be a straight piece of lumber or piece of flooring.

SPREADING THE ADHESIVE

Using the proper trowel, hold the trowel at a 45° angle to ensure proper spread rate of adhesive; apply pressure to allow the trowel to leave ridges of adhesive on the substrate with little adhesive left between the ridges. This will help to achieve the proper spread rate of the adhesive. Temperature and air flow across the adhesive can have an effect on the open time of the adhesive. Urethanes will have a longer open time in areas of low humidity and will have a shorter open time in areas of high humidity. (See Adhesive label for further information).

INSTALLING THE FLOOR

4. Spread adhesive from the chalk line/straight edge out to approximately the width of two planks. Install the first row of starter planks along the chalk line/straightedge and secure into position with the tongue facing the starter wall. **NOTE:** Proper alignment is critical. Misaligned starter rows can cause side and end gaps to appear in proceeding rows of flooring. When you have the starter rows complete, you can begin the next row.
5. When you are certain the first two starter rows are straight and secure, spread adhesive 2 to 3 feet wide across the length of the room. As a general rule, never spread more adhesive than can be covered in 30 to 45 minutes. If the adhesive has skinned over, remove dried adhesive and trowel new adhesive.
6. Continue to install planks and push them into place. Place the tongue of the board into the grooves of installed boards and press into the adhesive. As you continue working across the floor, try to maintain a six-inch minimum space between end joints. Randomly install different lengths to avoid a patterned appearance. **NOTE:** Never strike a rubber mallet or hammer directly on the flooring to engage the planks. This practice can damage the flooring and/or the finish.
7. Remove the adhesive from the surface of the installed flooring as you work – this will help to save time. A damp rag with water or mineral spirits will remove most adhesives that are **not** urethane based. Use mineral spirits or urethane adhesive remover to remove urethane based adhesives. **DO NOT** use water. Frequently change towels to avoid leaving a haze on the flooring surface.
8. As you approach the end wall it may be necessary to cut the width of the last row – be sure to allow for the expansion space along the end wall. Once the final cuts are made set planks into place.

9. After the floor is complete remove the straight edge and glue down the first two boards.
10. Restrict foot traffic for a minimum of 6-8 hours and wait 24 hours before permitting moving of furniture onto the floor.
11. Clean any wet adhesive from the flooring with a lightly dampened clean cloth. If the adhesive has dried, use mineral spirits on a clean cloth. For Urethane adhesive use the recommended urethane adhesive remover.
12. If specified in the adhesive instructions roll and cross roll floor with a 100-150 lbs. (45-70 kg) roller at the end of the installation to ensure proper transfer of adhesive.

AFTER INSTALLATION

- Flooring should be one of the last items installed. 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 and painter's tape to hold the protective covering in place. Clean the floor thoroughly before laying the rosin paper to ensure that no debris is trapped 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 the expansion space.
- 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.).

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. Optimum recommended temperature is 70°F and relative humidity is 30% - 50%. In very dry climates, the use of a humidifier might be necessary.

For complete maintenance guidelines for your floor visit <http://usfloorsllc.com>