GLUE DOWN INSTALLATION INSTRUCTIONS

REQUIRED TOOLS AND ACCESSORIES

* ShawBond 200™ Hardwood Flooring Adhesive
* 3/16" x 3/16" x 3/16" Square Notch Trowel
* Damp and Dry towels
* Shaw Adhesive Remover
* Tape Measure
* Hand Saw or Electric Saw (Recommend Carbide Tip Blade)
* 6' Straight Edge
* Carpenter's Square
* Soft Rubber Mallet
* Utility Knife
* Broom
* Spacers (1/2")
* Pull Bar
* Safety Equipment (Goggles & Mask)
* 100 or 150 lb. roller

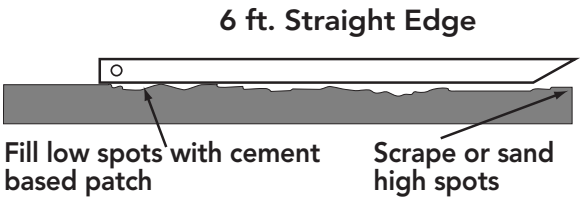
SUBFLOOR PREPARATION

Approved Subfloor Types:

1. APA approved 5/8" minimum thickness, preferred 3/4" or thicker exterior plywood. Note: When installing approved plywood, refer to specific structural panel manufacturer's instructions.
2. 3/4" (23/32") OSB on 16" center floor joists properly nailed
3. Concrete slab with additional approved subfloor
4. Existing wood floors (installed at right angle only)

Subfloors must be:

- CLEAN - Scraped or sanded, swept, free of wax, grease, paint, oil and other debris and surface contamination



- SMOOTH/FLAT - Within 1/8" on 6'. Sand high areas or joints, fill low areas (no more than 1/8") with a cement type filler. Note: 2 pennies equals 1/8'
- STRUCTURALLY SOUND - Nail or screw any loose areas that squeak. Replace any damaged sub-flooring or underlayments. Let filler cure dry before installation.
- DRY - Moisture content of the subfloor must not exceed 14% on a wood moisture meter, or read more than a 5% difference than moisture content of product being installed.

Concrete Slabs: It is acceptable to adhere approved Shaw Engineered Hardwood Flooring™ Products directly to a concrete slab subfloor.

Concrete Slabs containing antifreeze chemicals, admixtures or curing compounds that are hygroscopic (readily absorbing moisture) are not acceptable subfloors.

However, all concrete subfloors should be tested for moisture content. Below are methods to test for moisture:

- Tape down 2' x 2' polyfilm squares (a garbage bag or plastic drop cloth will do) in several places on the floor. Wait 24-48 hours, then check for the appearance of condensation on the inside of the bag or plastic or for a darkening of the concrete subfloor. Either occurrence signals the likely presence of excess moisture, requiring a Calcium Chloride Test. Do not proceed with the installation without performing one of the following tests.
- Perform a Calcium Chloride test, the maximum acceptable reading is 3-lbs./24hours/1000 sq. ft.
- Use a Delmhorst moisture meter, Model G-40 or Tramex Concrete Encounter. Check the subfloor in several locations.

Remember: The moisture content of the subfloor must not exceed 14% on the moisture meter or read more than a 5% difference than the moisture content of the product being installed.

- If too much moisture exists, do not install the floor. Contact your Shaw Hardwood Dealer for options.

Wood Type Floors: Make sure wood type subfloor is dry and well nailed or screwed down every 6" along each joist to avoid squeaking or popping before the flooring is installed. Level any raised edges by rough-sanding. When installing over old wood floors, install new flooring at right angles to the subfloor.

Important: Do not install any Shaw Hardwoods™ flooring product using the glue down installation method over any vinyl asbestos flooring, vinyl composition tile, linoleum, asphalt tile, ceramic or stone tile, carpet or vinyl sheet products. Use the Floating Floor Installation Method.

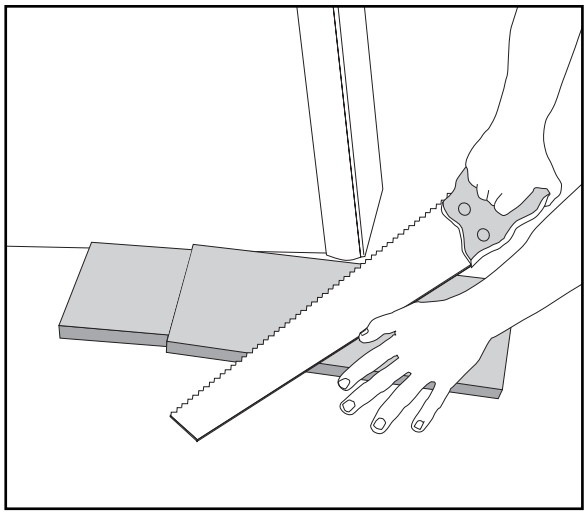
Installations Below the Soil Line: All Engineered Shaw Hardwoods™ flooring products can be installed on, above or below the outside soil line. Below grade installations require that not only the floor, but all surfaces exposed to the ground are to be effectively water/moisture proofed prior to installation.

Important: If a room or subfloor on, above or below the soil line has too much moisture, correct the problem before installing any Shaw Hardwoods™ flooring product.

Important: Do not use the glue down installation method on radiant heat flooring (use floating installation method only).

JOBSITE PREPARATION

- Undercut door casings. This can be done easily by placing a piece of flooring on the subfloor as a height guide for your saw.
- Remove any existing wall base, shoe molding, quarter round or doorway threshold.

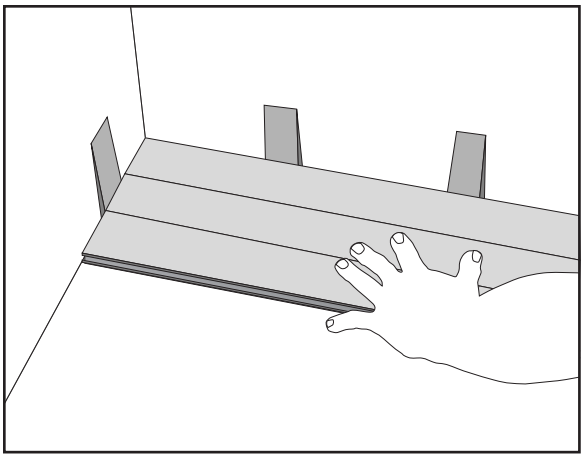


Step 1: GETTING STARTED

1. Choose a wall to start on. Measure the size of the room carefully to make sure the final row of boards (which almost always needs to be cut) is at least 2" wide. If it is not, cut off the long side of the boards on the first row. *See Installing the last row.*

Note: The use of installation straps may prove helpful for securing boards together. Installation Straps are a handy tool that will insure a tight fit when used to strap the floor while building a rack three rows wide.

Note: To cut the boards, always saw with the teeth cutting down into the face or top of the board. Cutting from the top down helps protect the surface.



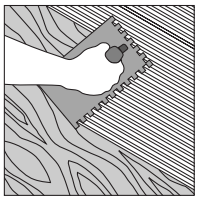
2. Begin installing the first row in the left corner at the base wall, so that the short grooved side will be against the wall to your left and the long grooved length of the board will be against the wall in front of you. Be sure to put 1/2" expansion spacers between the floor and walls at 12" intervals. You will place spacers around the entire room as you go. Always place expansion spacers against the wall where two boards meet. This will make maintaining a good square seam easier.

Note: Larger rooms require additional expansion space. Add 1/16" to the width of the spacers for every 3' the room extends beyond 25'.

3. If the starting wall is out of square, it will be necessary to scribe the first row to match the wall, allowing the opposite side of the row to present a true square base for the rest of the floor. When the first row is complete, you must have a straight, even base established. Always dry fit the first row before you begin gluing down boards.

4. Snap a chalk line along the subfloor 1/2” from the starting wall.

5. Starting on the side of the chalk line away from the wall and being careful not to cover the line, apply an even layer of ShawBond 200™ Hardwood Flooring Adhesive the width of the row.



3/16" x 3/16" x 3/16" Square Notch Trowel

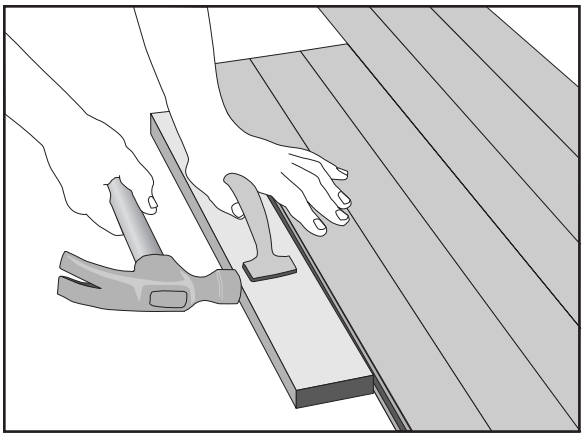
Step 2: SPREADING THE ADHESIVE

Hold the 3/16” x 3/16” x 3/16” trowel at a 45˚ - 60˚ angle and spread adhesive onto an area no larger than 30 - 40 square feet at one time. After spreading, set wood into adhesive immediately. Maximum available working time is 45 - 50 minutes. (Colder temperatures or high humidity will extend times and warmer temperatures or low humidity will shorten times.) Do not install wood flooring material after adhesive dries. Test by touching adhesive. If not readily transferred to finger, adhesive is already dried. If adhesive has dried, remove adhesive and apply new material. Periodically check wood to confirm 100% adhesive transfer. Within one hour of setting wood, roll the installation with a 100 - 150 lb. roller to promote good contact with the adhesive. Important: Always refer to the specific instructions on the ShawBond 200™ Hardwood Flooring Adhesive label.

Step 3: INSTALLING THE FIRST ROW

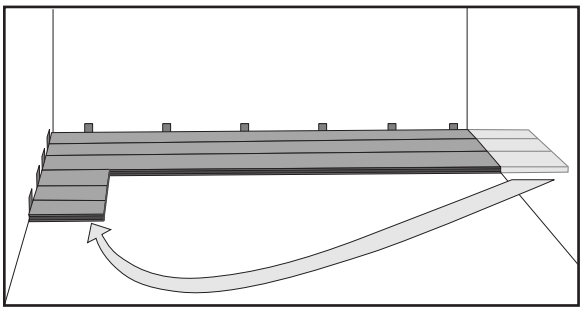
Important: The flooring should be installed from several cartons at the same time to insure proper color, grain and shade mix.

1. Place the first board, grooves towards the walls, firmly against the 1/2” expansion spacers to the front and left.



2. Connect the second board to the first board, making sure the boards are tightly connected and firmly positioned against the spacers. Place the tapping block against the tongue on the end of the second board and gently tap the opposite end of the tapping block with a hammer. The two boards must be tightly connected so that the surfaces are flush.

3. Continue placing additional boards moving left to right, using the same procedure until the first row is complete.



4. Cut off the end of the final board. Save the remaining piece for the starter board on the next row. Use the Pull Bar to make sure the board is flush against the preceding board. Place a spacer between the final board and the wall. When the spacer is in place, the first row should be completely immobile.

Important: For best results, allow the adhesives in the first row to dry before continuing with the next row.

Step 4: INSTALLING THE REST OF THE FLOOR

1. After the first row has completely dried, apply ShawBond 200™ Hardwood Flooring Adhesive to the subfloor with the recommended 3/16” x 3/16” x 3/16” notch trowel following the procedures in Step 2 - SPREADING THE ADHESIVE.

2. Start each new row on the left side with the remaining portion of the previous board. Remember: Always stagger 18" between end joints of adjacent board rows. The end joints should not repeat visually across the installed floor.

3. Use the Tapping Block to tap the tongued end so that the first board of each new row is firm against the expansion spacer. Then move the Tapping Block to the tongued long side of the board and tap the board until it is flush against the previous row.

Important: Make sure that there is 100% contact between the board and the ShawBond 200™ Hardwood Flooring Adhesive.

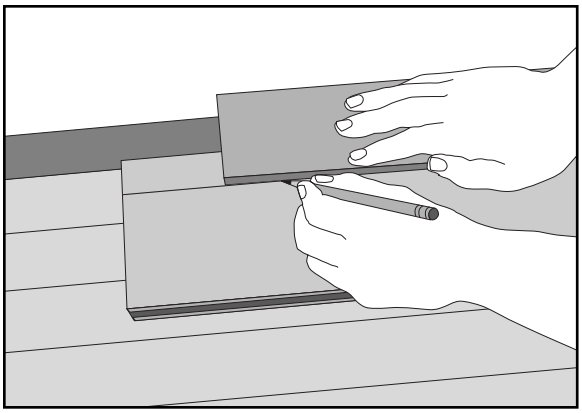
4. Glue and position the next board. Match the tongue and groove at the end only, then, beginning at the opposite end of the board, tap the board onto the previous row. Move the Tapping Block back toward the left side of the board until you get near the connection with the previous board. Before you finish tapping the board into the previous row, you must be sure the end joint is flush. If the board is not lining up properly, use the Pull Bar to wiggle the board away and begin again. If you do not completely close the end seam first you will not be able to do so once the long seam is completely flush.

5. Cut the last board to fit the end of the row and use the Tapping Block and the Pull Bar to make it flush. Continue with the next row, using the remainder of the last board as before.

Step 5: INSTALLING THE LAST ROW

Most often the entire length of the last row will need to be cut so that it is narrow enough to fit the remaining space. When this occurs, follow this simple procedure:

- Lay a row of boards, unglued, with the tongue toward the wall, directly on top of the last row installed.
- Take a full width scrap piece of the Shaw Hardwoods™ product that is being installed with the tongue side against the wall. Use 1/2" spacers against the wall to ensure the proper expansion space.



- Draw a line along the row moving down the wall. The resulting line gives the proper width for the last row which, when cut, can then be wedged into place using the pull bar.

You will need to use the Pull Bar extensively to make the last row properly flush.