# HERRINGBONE INSTALLATION GUIDELINES FOR SPC PRODUCTS

(Revised June 1st, 2023)

## I. GENERAL INFORMATION

These installation guidelines apply to the SPC (Stone Plastic Composite) products only. All instructions and recommendations should be followed for a satisfactory installation.

• Acclimation of material prior to installation is not required however the floor covering should be installed in a climate controlled environment and/or a temperature between 55° - 85°F (13°-29°C) or average temp. of 70°F (21.1°C)
• Post installation temperature range is between 32 - 100°F (0°- 37.7°C).
• Avoid exposure to direct sunlight for prolonged periods, doing so may result in discoloration. During peak sunlight hours, the use of the drapes or blinds is recommended. Excess temperature due to direct sunlight can result in thermal expansion and UV fading. In extreme situations of direct sunlight we suggest that the glue down method be used.
• Install product after all other trades have completed work that could damage the flooring.
• To minimize shade variation, mix and install planks from several cartons.
• Inspect all planks for damage before installing.Claims will not be accepted for flooring that has been cut to size and/or installed.
• 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.
• Installation – Floating installed on, above, or below grade with recommended adhesives.
• For installation in areas shorter than 30′x30′, 900 sq. ft. provide a minimum expansion space of 1/2″ (12.7 mm) around the perimeter. If the areas larger than 900 sq, please use Molding to divide the areas.
• SPC flooring is water/moisture resistant and reliably secures the flooring panels on all four sides. However, excessive moisture in the subfloor could promote mold, mildew, and other moisture related issues like the trapping of moisture emissions under the flooring, which may contribute to an unhealthy indoor environment.

## II. SUBFLOOR INFORMATION

All subfloors must be clean, flat, dry and structurally sound. The correct preparation of the subfloor is a major part of a successful installation. Subfloor must be flat – 3/16″ in 10′ or 1/8″ in 6′.

### A. Concrete Subfloors

• Floors shall be smooth, permanently dry, clean, and free all foreign material such as dust, wax, solvents, paint, grease, oils, and old adhesive residue. The surface must be hard and dense, and free from powder or flaking.
• New concrete slabs must be dry. Maximum moisture level per CaCl test method is 8 lbs. per 1000 in 24 hr. Maximum level for ASTM 2170 In-situ Relative humidity test method - 90%.
• Do not install over concrete with a history of high moisture or hydrostatic conditions. Excessive moisture in the subfloor could promote mold, mildew, and other moisture related issues like the trapping of moisture emissions under the flooring, which may contribute to an unhealthy indoor environment. Shaw Industries does not warrant nor is responsible for damage to floor covering due to moisture related issues.
• pH level of concrete should be between 7-10.
• The final responsibility for determining if the concrete is dry enough for installation of the flooring lies with the floor covering installer.

**Radiant Heat: Hydronic only** - Radiant heat components must have a minimum of 1/2″ separation from the product. This is the only type of radiant heat system that is approved. Radiant heat system must be on and operational for at least 2 weeks prior to installation to reduce residual moisture within the concrete. Three days prior to installation lower the temperature to 65 degrees, after installation gradually increase the temperature in increments of 5° F to avoid overheating. Maximum operating temperature should never exceed 85°F. Use of an in-floor temperature sensor is recommended to avoid overheating.

## III. INSTALLATION

**Tools: Tape Measure, Utility Knife, Jigsaw, Tapping Block or Rubber Mallet, Pull Bar, ¼″ Spacers, T-Square, Safety Glasses, Broom or Vacuum and, if necessary, tools for subfloor repair.**

### Floating Installation

SPC plank flooring is designed to be installed utilizing the floating method. DO NOT secure the planks to the subfloor when using the floating installation method. Proper perimeter expansion space 1/4″ (6.35 mm) is required. Undercut all doorjambs. Do not fasten wall moldings and or transition strips to the planks.

**Alternate Installation Patterns:**

Single Herringbone          Square Herringbone          Brick
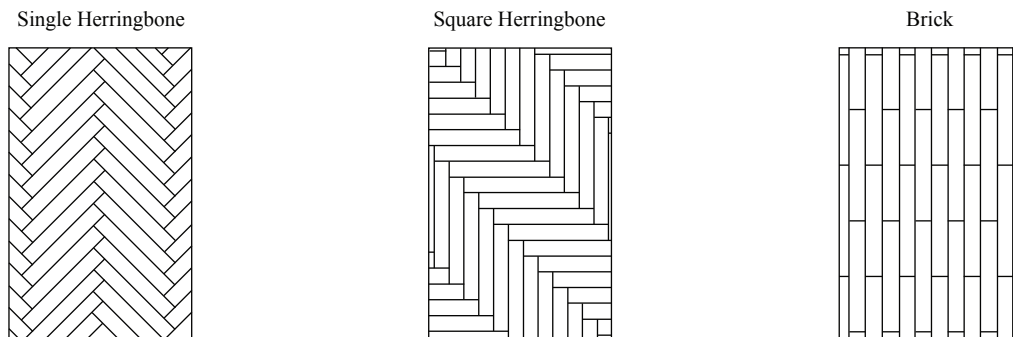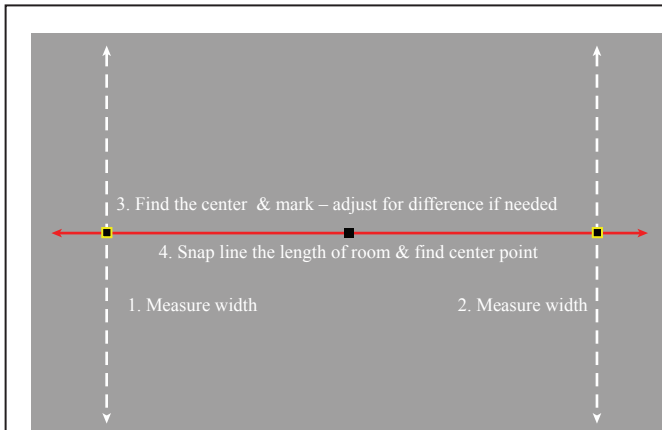
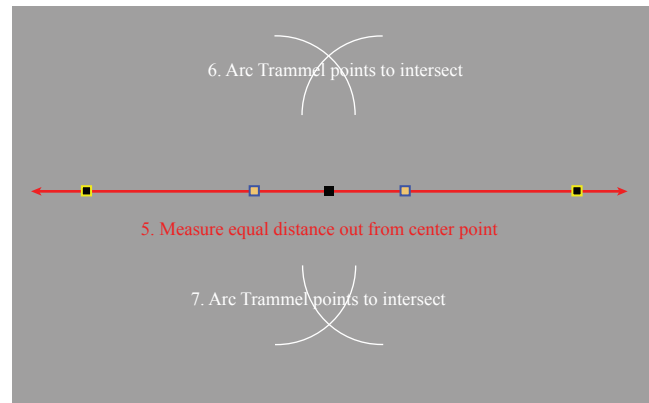GROOVE SIDE          a

b          GROOVE SIDE

The herringbone planks can be identifies by:
a-Herringbone plank with groove on left end side.
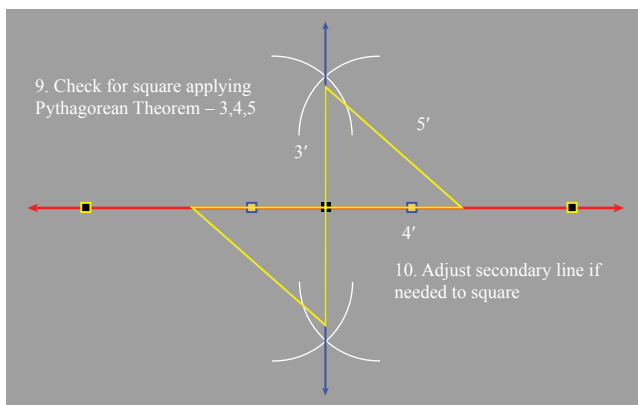b-Herringbone plank with groove on right end side.
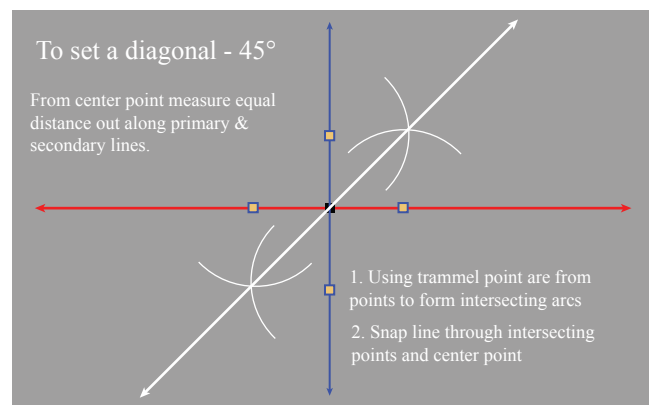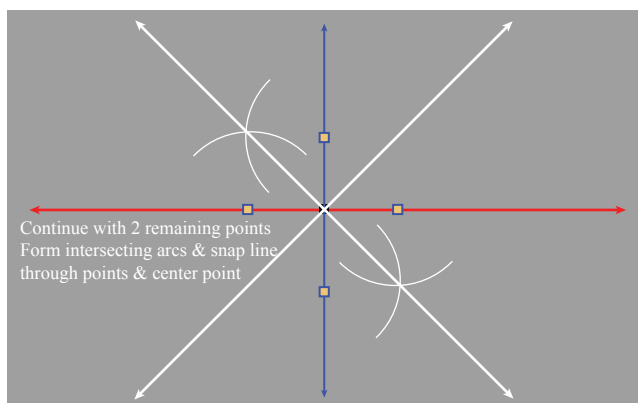
## Getting Started - Determining the working lines

3. Find the center & mark – adjust for difference if needed
4. Snap line the length of room & find center point
1. Measure width
2. Measure width

Establish a primary line.

6. Arc Trammel points to intersect
5. Measure equal distance out from center point
7. Arc Trammel points to intersect

Establish a secondary line.

9. Check for square applying Pythagorean Theorem – 3,4,5
5′
3′
4′
10. Adjust secondary line if needed to square

Once you have established the primary and secondary line, check for square - use the 3′, 4′ , 5′ method (otherwise known as Pythagorean Theorem). For larger areas you can use 6′, 8′ and 10′ and so on.

To set a diagonal - 45°

From center point measure equal distance out along primary & secondary lines.

1. Using trammel point are from points to form intersecting arcs
2. Snap line through intersecting points and center point

Set diagonals – first line - 45°.

Continue with 2 remaining points Form intersecting arcs & snap line through points & center point

Second diagonal - 45°. Once all the lines are established the pattern can be laid from the primary lines or use the diagonal lines to install on a 45° angle.

After you have determined the direction to install the pattern you will need to lay out a plank and establish reference lines (secondary) to keep the pattern from running off. Prior to installation always refer to the installation guidelines of the product for complete installation details.
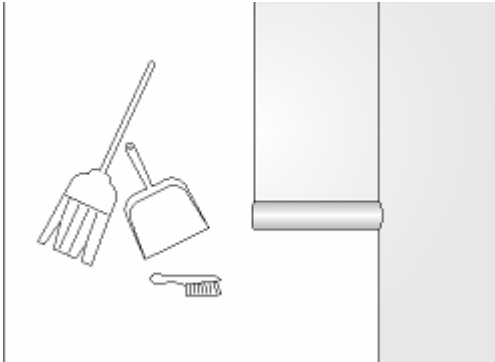
**Preparation:** Check the panels and make sure that the surface has no transport damaging before you start. After cleaning the subfloor you can roll over the vapor barrier and underlay overlap minimum 20 cm.
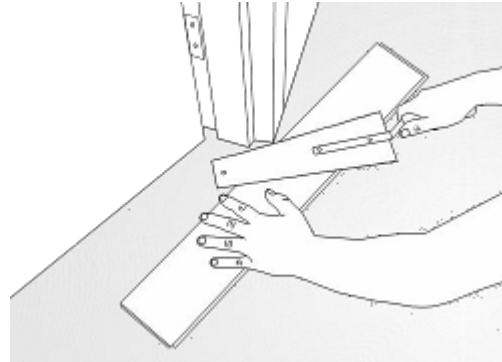
**Door mouldings and skirtings:** Put a panel (with the decorative side down) next to the door molding and saw as shown in the figure. Then slide the panel under the molding.
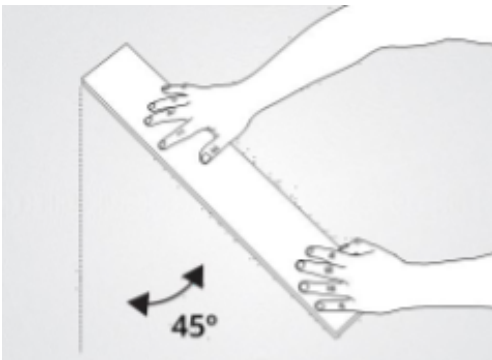
**Figure 1:** Getting started. Choose a wall to start at and begin installing at the left corner. Start with an A-panel and place it with its long side facing the left wall at an angle of 45°. Make sure that the distance between the left wall and the panel is less than the length of one panel.
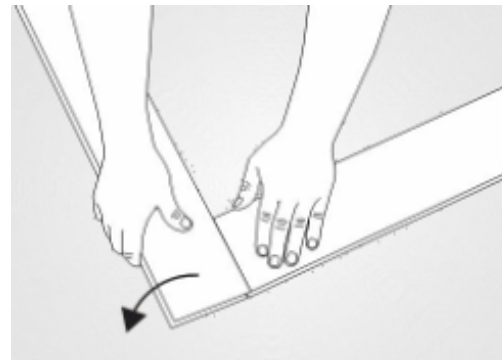
**Figure 2:** Continue with a B-panel. Press the long side of the B-panel at an angle against the short side of the previous installed A-panel. Fold down the B-panel flat to the floor to lock the panels tightly together. Check that the grooves on the two panels form a continuous line.
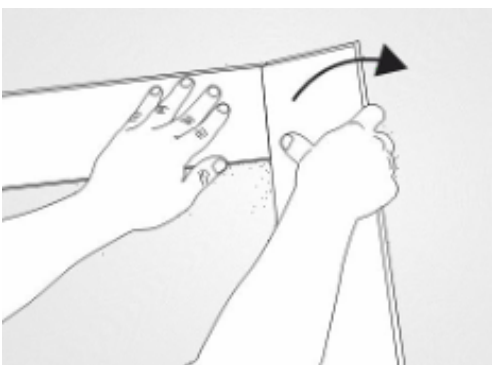
**Figure 3:** Connect additional panels. Next panel is an A- panel. Again, press the long side of the new A-panel at an angle against the short side of the previous B-panel and fold down. Continue like this with as many panels as may fit along the starting wall.

**Figure 4:** Center the first row. Check that the first row of panels is centered along the starting wall. Make sure that the distance to the walls on both sides are less than the length of one panel. If not, add a panel at the right side.
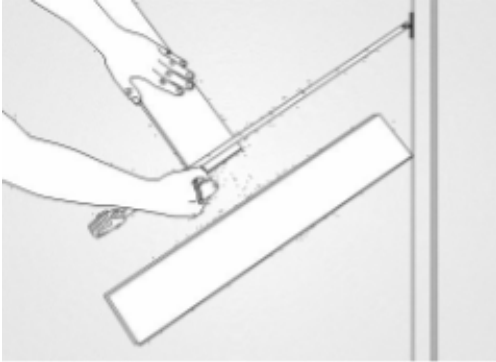
**Figure 5:** Cut the end panels to size. Measure and cut the end panels to size using a finetoothed saw. Finish the first row with the cut end panels. Make sure that you leave a gap of 10/12 mm to each wall.
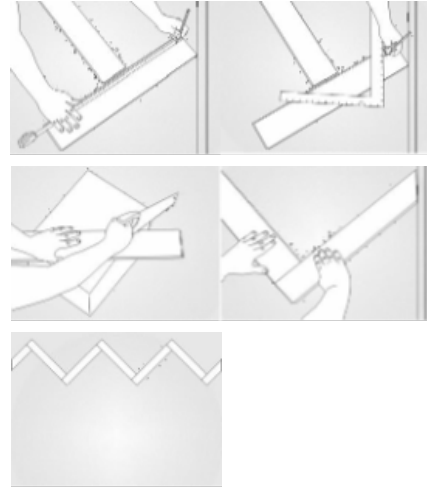




**Figure 6:** Start the second row. Start the next row with an A-panel. Place the new panel against the previous row and fold down.



**Figure 7:** Install the A-panels. Continue from the left to the right and install all the A-panels in the second row. Finish with a piece of panel cut to size (step 5).



**Figure 8:** Continue with the B-panels. Now work in the opposite direction, from the right to the left and install all the B-panels in the second row. Finish with a piece of panel cut to size (step 5).



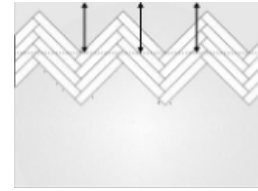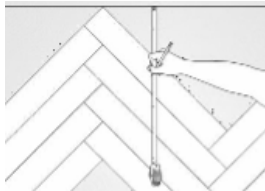**Figure 9:** Complete four rows. Install additional rows to complete four full rows.

**Figure 10:** Adjust the starting rows. The first four rows have to be cut parallel to the wall. Measure and mark where to cut the floor panels at a fixed / parallel distance to the wall.
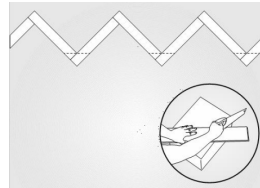


**Figure 11:** Number the panels from 1 to…. This will allow you to keep the panels in order. Dismantle the panels and cut them to size along the previous marked line.



**Figure 12:** Install the starting triangles. Connect the cut starting panels to form triangular shapes, one by one. Start installing the triangles from the left corner. It is recommended to use glue to fix the smallest parts of the triangles into place by applying a small quantity of glue inside the groove.
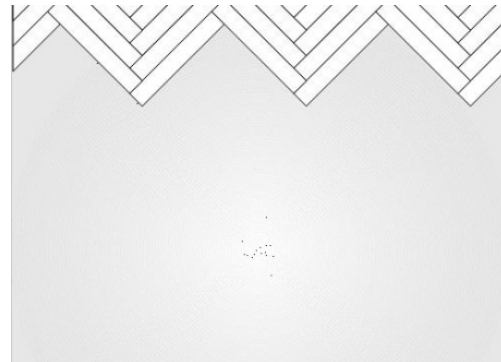


**Figure 13:** Install a few more rows. Connect the triangles by installing a few additional rows of panels. Start each row from the left to the right with the A- panels, finish with the cut piece of panel (step 5) and then install all the B-panels in the row. Finish with the left end panel, cut to size.
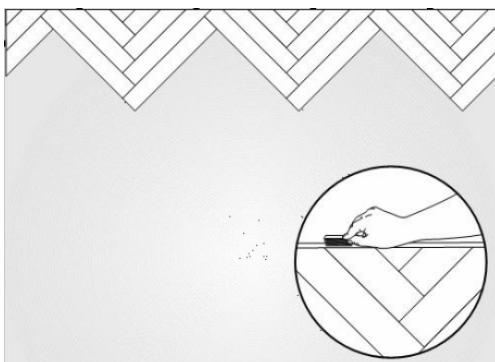


**Figure 14:** Put in spacers. Put in spacers between the flooring and the wall to ensure a expansion gap of 10/12 mm.



**Figure 15:** Subsequent rows. Start each subsequent row by installing the A-panels from the left to the right and complete the row by laying the B-panels from the right to the left.

**Final Inspection:** After the floor has been cleaned, inspect the floor for nicks, scratches, gaps or planks that may have moved during installation, as well as, any other imperfections that need attention.

## IV. COMPLETING THE JOB – ALL INSTALLATIONS

• Sweep or vacuum floor.
• Clean the floor with proper hardwood floor cleaner.
• Install transition pieces - i.e. thresholds, t-moldings, base boards and quarter round. Nail moldings to wall, not the floor.
• Inspect final floor for nicks and or minor gaps.
• Unused material should be left with owner and stored in a dry place in case of future repairs are needed.
• Use plywood or hardboard when moving heavy appliances or furniture across floor.

**Floor Protection During Construction:**

After installation, if you choose to protectively cover the floor, cover the floor completely, since some species are light-sensitive and uncovered areas may change color. Use a covering material with a vapor permeance (perm rating) of 1 perm or more (tested I accordance with ASTM E-96) to avoid trapping moisture/vapor on or within the floor. Any covering should be taped, using a low-adhesion tape, to base or shoe moldings. Avoid taping to finished flooring. When taping paper or sheets together, tape them to each other, not to the floor.

**Moldings Help You Make Easy Transitions**

• T-Moldings: Used to create a transition between floor coverings of similar heights or to cover an expansion gap.
• Stair Nosing: Used in conjunction with flooring installed on steps or provide a finished edge. Secure by gluing and nailing/ screwing down into place. Predrill holes to avoid splitting.
• Reducer Strips: Used to transition floor coverings of differing heights- wood floor to vinyl, vinyl composition tile, or low-pile carpet. Can also be used to border a fireplace.
• Quarter Round Moldings: Used to cover the expansion space between the Wall Base and your hardwood floor. You can also use them to make smooth transitions between the floor and cabinetry.
• Wall Base Moldings: Can be stained and finished to the color of the flooring to be used an alternative to painted baseboards.