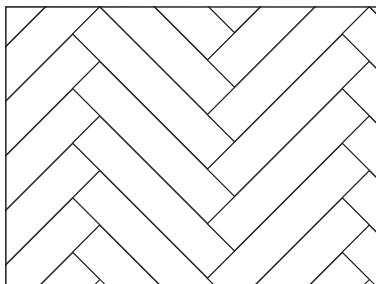


## Herringbone

### DESCRIPTION

The Herringbone product is recommended to be installed by a certified professional. The qualified installer must respect the basics of the NWFA installation guidelines. Preverco offers 2 options of platforms for Herringbone : SolidClassic and Max 19. Our Herringbone products are made universal with grooves on both ends of the boards. It is important to choose the proper platform relative to where you will install the product in the home.

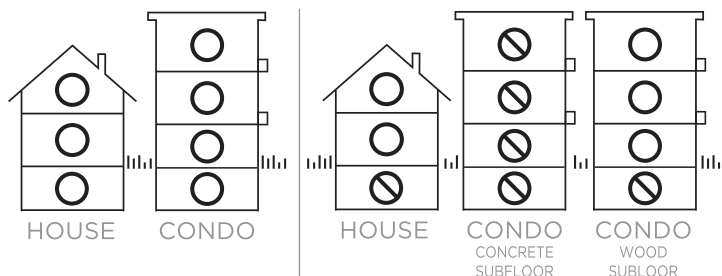


### HANDLING AND STORING

Hardwood is a natural living material, which reacts to changes of relative humidity. It absorbs and releases moisture before and after it is installed, depending on the variations in the environment. Hardwood expands in summer and shrinks in winter. To prevent excessive expansion or shrinkage of your hardwood floor, it is recommended to maintain the relative humidity level in your home, office, chalet, cottage, etc. (location of wood installed), at the appropriate humidity level for your area (between 37 % and 50 % approximately) throughout the year.

Your authorized Dealer / Distributor will supply you with specially designed cartons that have been stored in a heated and well-ventilated warehouse. It is important not to transport your wood under raining and/or damp conditions, nor should you store it in a non-heated or poorly ventilated area beyond values indicated above.

### LOCATION



#### MAX 19

Preverco Max19 Herringbone floor can be installed over radiant heat and in a basement as well as above grade.

#### SOLIDCLASSIC

Preverco SolidClassic hardwood floors cannot be installed over radiant heat or in a basement or below grade.  
\* **Never install SolidClassic directly on concrete subfloor.**

### ABOUT INSTALLATION

To ensure that your hardwood floor is properly installed, Preverco recommends that you follow the installation instructions whether you install it yourself or hire a certified professional installer.

- It is the owner's responsibility to ensure that the wood delivered is the wood that has been ordered and chosen.
- If you hire an installer who will install your herringbone floor without your supervision, it is your responsibility to ensure the practical judgment of the installer. The installer should use reasonable selectivity in assessing the quality of the wood and the appearance, by arranging the boards according to the natural color variations of the species selected. Preverco cannot be held responsible for any error due to the installer's choices.
- The installer and/or the owner should select boards appropriately and, either discard, relocate in hidden places or cut out pieces with defects, if any, when required.
- **Installer:** please take the time to carefully read over our detailed installation instructions as they could be different from other products.
- **A 15 % material waste allowance should be included** within your total square footage to allow for waste. The use of wood putty, filler, or stain might be required during the installation process and is considered an industry standard.
- **The industry standard for natural and manufacturing imperfections with respect to appearance and grade is 5 %.**

**If at any time you feel that in any way our Preverco product is not to standard in reference to appearance, width, color, sheen, milling tongue or groove placement, STOP installation and contact immediately the retailer where you purchased your floors for assistance.**

### TOOLS AND MATERIAL REQUIRED

- Leveling bar
- Tape measure
- Scraper
- Chalk line
- Jamb saw (for under cutting door frames and casing)
- Wood/concrete moisture meters
- Circular saw
- Miter saw
- Bench saw
- 3M tape or painter's tape
- Chisel
- Tapping block
- Square template
- Slip tongues Type 2
- Wood Glue
- Recommended Urethane adhesive and cleaner
- Flooring roller
- Brad nailer

#### NUMBER OF TONGUE REQUIRED

Width of board 4 1/4"	Width of board 5 1/8"
60' linear of slip tongue covers approx. 100 s/f. Cut to approx. 4" pieces.	52' linear of slip tongue covers approx. 100 s/f. Cut to approx. 5" pieces.

## CONDITIONS & INSPECTIONS

- 1. STRUCTURALLY SOUND:** Nail or screw down the subfloor (Plywood or OSB) if there are any loose areas that could cause squeaks. Gluing a hardwood floor down to the subfloor will not take away any problems of squeaking. It may only hide it somewhat. The subfloor must meet the NWFA and National Building Code requirements. Your installation will only be as good as the subfloor underneath. We suggest the use of CDX PS1 plywood or OSB.
- 2. DRY:** Conduct a moisture test in different areas of the subfloor and record your readings. For plywood and OSB subfloors, the percentage moisture difference between the hardwood floor and the subfloor must not exceed 2 % with a maximum of 12 % for the subfloor. For concrete subfloors, the moisture content of the concrete should never exceed 4 % with electrical conduction device (Tramex or equivalent) or 75 % ASTM Test F 2170. The installer and the floor owner are both responsible for measuring the moisture content of the subfloor and making sure it is within the recommended level prior to installation.
- 3. CLEAN:** Broom sweep the area and vacuum. Ensure that there is no contaminant like: wax, paint spills, oil or any other material that could cause a problem with the adhesive adhering to the substrate.
- 4. FLATNESS:** Using a straight edge or level, check to see if the subfloor (concrete) is within 3/16" (5 mm) on a 10' length (3048 mm) or of 1/8" (3 mm) on a 6' length (1828 mm) for a glued down installation and 1/4" (6 mm) on a 10' length (3048 mm) or of 3/16" (5 mm) on a 6' length (1828 mm) for a nailed installation. If there is a need to patch/fill in the low areas, make sure to use a filler from a cement/polymer type base that has a strength of 3000 PSI. Read over the cement/patches maximum thickness allowed or you might overfill in deep areas or voids, and the strength of cement filler will not be strong enough to support heavy objects. Make sure that the subfloor is free of any imperfections (including nails or screws).
- 5. FOR THE PURPOSE OF ACOUSTICS AND STABILITY,** we recommend the installation of the SoundLoc 2.0 underlayment (or an underlayment up to 1/8" (3 mm) thick with a maximum compression of 20 %. You might have to use moisture control adhesive to avoid any deformation of the hardwood caused by the subfloor humidity. In order to obtain optimal installation and full warranty coverage, the subfloors must be rectified prior to installation, leveling out any irregular surfaces (concrete, plywood or OSB subfloor) that may cause improper installation (refer to point 4 in section "Subfloor conditions & inspection"). You may correct these irregularities by sanding or using a self-leveling concrete.
- 6.** Our engineered products are designed to perform on concrete, plywood or OSB subfloors. Subfloors can be made of different material as long as they are structurally strong enough to support the overall weight (see NWFA recommendations).

**PLYWOOD:** The industry now allows for the use of CDX plywood (exterior grade, PS1) with a minimum of 5/8" (16 mm) tongue and groove. Check that the subfloor is fastened down with the proper fastener (deck screws work well). The use of drywall screws is not acceptable. The recommended nailing/ screwing down pattern is 4" to 6" (100 mm to 150 mm) in the field area and 2" to 4" (50 mm to 100 mm) on the seams. Contact with the joist is always preferred. Always check for moisture content to not exceed 12 % prior to installation using a wood moisture meter. Also, make sure that the percentage moisture content of the engineered flooring is within 2 % of that of the subfloor.

**O.S.B.:** 23/32" (19 mm) (stamped exterior grade, PS1) also is approved. Install hardwood 90 degrees to joists only. Always check for moisture content to not exceed 12 % prior to installation using a wood moisture meter. Also, make sure that the percentage moisture content of the engineered flooring is within 2 % of that of the subfloor.

**CONCRETE:** For new concrete, allow a minimum of 30 days cure time prior to start of concrete moisture tests. Various methods and testing devices exist to check the moisture level of a concrete subfloor.

- **Polyethylene test (ASTM D 4263),** surface test. Tape a plastic film of 2' x 2' (600 mm x 600 mm) over concrete for 48 hours to see if concrete changes color or condensation occurs. This information will indicate that the concrete floor is wet, and the wooden floor should not be installed. This method is empirical and is a preliminary test, further analysis will be required.

- **Relative moisture test (ASTM F 2170),** thorough test. Using an ultrasonic sensor and a sensor, check the relative humidity of the concrete slab to 40 % of its depth. A reading of 75 % RH or less indicates that the concrete slab is ready to receive the wooden floor; a reading between 75 % and 85 % indicates that it is preferable to place a waterproof membrane before installing the wood floor. Never install a hardwood floor when moisture level is greater than 85 %.

- **Calcium chloride test (ASTM F 1869),** thorough test. A calcium chloride test must be conducted to determine whether the moisture content of the concrete exceeds 3 lb./1000 ft<sup>2</sup>/24 h. If so, but less than 7 lb./1000 ft<sup>2</sup>/24 h, use an approved waterproof membrane to cover the concrete. Never install a hardwood floor when the calcium chloride test exceeds 7 lb./1000 ft<sup>2</sup>/24 h.

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**NOTE :** It is preferable, even if the subfloor is dry, to use a vapour barrier as conditions can change quickly.

Make a minimum of 20 test locations for up to the first 1000 ft<sup>2</sup> and 4 per additional 100 ft<sup>2</sup> and average the results.

**RADIANT HEATING:** To apply Preverco engineered Max19 Herringbone floor over this type of heating, make sure that the system has gone through a heat/leak test and has run on and off for a few weeks prior to the floor installation. The system must have reached the room temperature before to install the floor and he must be turned off during the installation. After the entire installation is finished, you can gradually (3.0°C / 5.4°F per day) bring the heating system back to normal. The system's surface temperature should never exceed 26.6°C / 80°F. Moreover, if radiant heat pipes are exposed or apparent from the subfloor, a 3/8" (10 mm) plywood or a concrete layer of 1/2" (12 mm) must be used to cover the pipes in order to spread out the heat more evenly.

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**NOTE:** The warranty of your Preverco floor could be void if an improper use of installation of a radiant heat system is demonstrated.



## GLUED DOWN INSTALLATION ONLY

- \* Use masking tape to hold in place the boards and the whole pattern.
- \* During the installation, always use a square template properly attached to the subfloor to keep the floor and the pattern stable and perfectly aligned. Throughout the installation, follow the (3) reference lines pre-marked on the floor.

Use only the recommended moisture-cured urethane or rubber adhesive, trowel size, and spread rate to ensure adhesive transfer to substrate and hardwood. Check adhesive expiration date. Conduct a moisture test on concrete (refer to the concrete paragraph in the subfloor section of this document). Spread out a small amount of adhesive on the concrete and check for adhesion bonding. The concrete must not have been treated with a floor sealer. The porosity of the concrete surface must comply with the adhesive manufacturer's recommendations or be between CSP1 and CSP4. Use a metal trowel only. The teeth in a plastic trowel will wear down and cause a difference in spreading rate that will directly affect the hardwood's ability to adhere to the substrate.

For acoustic informations, see the subfloor section. Glue will be spread between wood, and underlayment and subfloor. This installation type is named "double-glued". Plank glued directly on subfloor is named "simple-glued".

### •Adhesives you can use :

- |  |                               |
|--|-------------------------------|
| - Bostik<br>(Best, BST ou Vaporloc)          | - Titebond<br>(811 Advantage) |
| - Acoustitech<br>(AD-316, AD-532 and AD-844) | - Bona<br>(R851)              |

Check with the adhesive manufacturer for the installation guide, the types of platforms where we can use the product and if the product can be used with radiant floor systems.

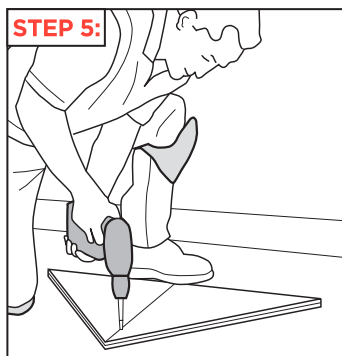
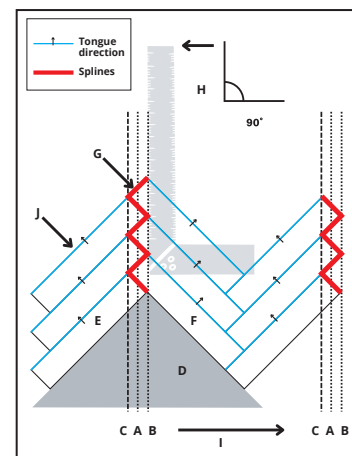
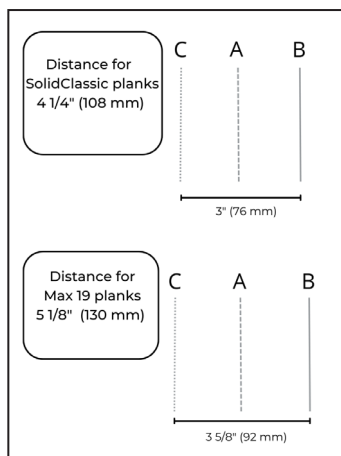
- Adhesives have a set up time which may vary from brand to brand.
- Make sure not to spread out the adhesive beyond your working time
- Immediately remove any adhesive from the face of the hardwood using the proper adhesive remover. Refer to the manufacturer's adhesive label for details.
- Never slide over or drag a board along the applied adhesive as adhesives have an elastic memory and will move back or away from position.
- Hold the trowel on a 45 degrees angle, pressing firmly. Respect the spread rate of the manufacturer's guidelines.
- Replace any trowel that has worn teeth. Do not try to create your own notches by cutting teeth out with tin snips.
- Open time will vary by climate, region, or dwelling humidity.
- It is considered a good practice to check occasionally that you have enough adhesive transfer on the back of the hardwood plank.

draw the line A in the center of the room. Then draw lines B and C on the left and right sides of the line A. The distance variate relatively to the width of the board.

4 1/4" (108 mm) planks : 3" (76 mm) distance between C and B

5 1/8" (130 mm) planks : 3 5/8" (92 mm) distance between C and B

You can again create the same lines A, B and C for the next rows with this method (parallel lines in point I in the picture on the right).



**Build a Template** with a plywood sheet (D). The dimension of the square template must be around 25" wide with both 90° sides. Then, place the template in the center of the room. Place the top corner of the pattern on the line B. Screw it at the subfloor to keep him in place during the installation. Make sur that you're perfectly aligned.

**STEP 6: Place the glue on the subfloor.** Use a trowel to apply adhesive at a 45 degrees angle. It is important to use the trowel recommended by the manufacturer in order to apply the correct amount of adhesive. Verify the installation information of the glue. Lay the floor in small sections to prevent the adhesive from drying. Avoid getting glue on the surface of the boards. Clean every glue spots immediately.

### STEP 7: Start the installation of boards

1. Verify the boards and select them for appearance and quality, using less perfect boards for cuts when finishing near walls.
2. Install the first board (E). The right corner must be on the line B and the left corner must be on the line C with the tongue side away from the template (J).
3. Then, install the board (F). The right corner must be on the line B and the left corner on the line C with the tongue side away from the template (J).
4. Once the first row is installed, wait for the glue to dry on concrete installations so subsequent rows have solid support and installation is perfectly square. If the subfloor is wood, you can nail assist the first row and continue installation immediately. You must ensure that the row stays square and straight if you choose to nail assist.
5. Add the splines (G) at the top of boards in the grooves where needed. The splines need to be glued with PVA type II glue. Only glue splines into the butt ends of the boards.
6. Leave a space of 1/4" (6 mm) between the wall and the boards for the expansion joint.



## HOW TO START HERRINGBONE

**STEP 1: Choose the herringbone direction.** The client have the choice to decide. It may look best if it point in the direction of the longest dimension of the room or in the direction of an important focal point like a wall with a window or a colored wall.

**STEP 2: Measure the dimensions of the room.** Find the center of the room to complete the next step.

**STEP 3:** If you need to use an acoustic membrane, you can glue it on the subfloor before to install the boards.

**STEP 4: Create the 3 principal working lines (A, B and C).** First,



## REGULAR AND PREVENTIVE MAINTENANCE

Preverco offers a complete selection of maintenance products specially designed to preserve the original appearance of your hardwood floor. Quick and easy to use, they will make cleaning as easy as ABC and protect your investment for a lifetime.

- Maintain proper humidity conditions within your home. It is recommended that the humidity level stay in the recommended range between 37 % and 50 % throughout the year. Problems related to humidity level variations can be minimized by proper ventilation humidifying, dehumidifying, or heating.
- Regularly vacuum the floor to prevent sand or abrasive dust from accumulating and scratching the finish.
- Entrance door mats help reduce dirt, stones, gravel, and sand from damaging your new hardwood floor.
- Remember that wood and water do not mix! Never clean your Preverco floor with water and do not leave water or any other liquid to dry on your hardwood floor. Wipe up spots and spills immediately.

**NOTE:** Avoid vinegar and oil soap products.

- Be sure to keep pet's nails cleaned and trimmed as they could damage the finish of your hardwood floor.
- Although our finish is very durable and resistant, sharp and pointed objects can cause damage to your floor.
- Never use wax, household detergents, or soap, as they will leave a greasy film on your floor. Avoid all oily products and all products designated for the maintenance of hardwood furniture. These types of products are not designed for the maintenance of your hardwood floor. Use Preverco maintenance products specially designed for the care of your hardwood floor. Always clean your hardwood floor length wise following wood grain.
- Avoid wearing high heels on your hardwood floor. Do not wear shoes that are covered with dirt, gravel, or abrasive dust.
- Use adequate floor protection (felt pads) under all furniture and chair legs, in order to ease their movement and to prevent scratching the floor. Keep them always clean and free of debris. Use protective mats at doorways.
- Protect the floor while moving heavy pieces of furniture and appliances i.e., stove, fridge, etc. Carry them or place them on a rug wrong side up and slide the rug. The use of one or more piece(s) of clean plywood 5/8" (16 mm) could also be used to move objects on.

## REPAIRS

If an incident should damage your Preverco prefinished hardwood floor, replacing the affected individual board is easy. Your Preverco authorized dealer can assist you regarding any repairs.

## MANUFACTURER COMMITMENT

If the proper maintenance and conditions indicated in this document are respected and the quality of the product or the finish does not comply with the established quality standards, Preverco will repair your floor as per our warranty documents.

