# Installation guide

# INSTALLATION GUIDE

Following these instructions carefully will greatly impact the life of your floors and whether or not you can take full advantage of the warranty.

# **IMPORTANT - BEFORE YOU BEGIN**

Hardwood is a product of nature. It is a living matter. It reacts to relative humidity variations. Wood will retract in winter and expand in the summer. In order to keep the expansion and retraction of your floors to a minimum, it is important that you maintain the humidity level of your home between 40 and 55 % all year long. We recommend letting the wood boards acclimate to the relative humidity level inside the house for 72 hours before you start the installation, stacking them in a checkered pattern and not opening them.

- HARDWOOD FLOORS SHOULD BE THE LAST THING YOU INSTALL WHEN RENOVATING.
- START HEATING THE HOUSE (20/22) AT LEAST ONE WEEK BEFORE INSTALLATION.
- KEEP THE SUB FLOOR DRY AND THE BASEMENT WELL VENTILATED.
- MAINTAIN THE RELATIVE HUMIDITY LEVEL OF YOUR HOME BETWEEN 40 AND 55 %.

Plan on purchasing 4 to 6 % more boards than you need to cover the entire floor, to compensate for material waste due to cuts.

# PREPARATION

#### 1. SUB FLOOR: PLYWOOD OR OSB UNDERLAYMENT AND HUMIDITY

Plywood underlayment: for joists spaced at 12" (30.5 cm) or at 16" (40.6 cm), use a 5/8" (16mm)-thick plywood board minimum; for joists spaced at 19" (48.3 cm) and above, use a  $\frac{3}{4}$ "-thick plywood board.

OSB panels (« oriented strand boards », « Aspenite » or « pressed wood »): for joists spaced at 12" (30.5 cm) or at 16" (40.6 cm), use a 3/4" (19 mm)-thick OSB minimum; for joists spaced at 19" (48.3 cm) and above, use a 3/4"-thick plywood board; OSB is not recommended.

# DO NOT INSTALL YOUR FLOOR OVER PANELS MADE OF PRESSED WOOD OR GLUED PARTICLES (« MDF » or « K3 »).

Using a wood humidity tester, verify that the humidity level of the sub floor is not greater than 12 %. For floorboards up to 3 1/4" wide, flooring should not be installed when the moisture content of the subfloor and the floorboards differs by more than 4 %. For floorboards of 3 1/4" wide and more, flooring should not be installed when the moisture content of the subfloor and the floorboards differs by more than 2 %. If the humidity level of the sub floor is too high, find the source for this humidity and make sure it stops increasing the humidity level of the sub floor. If needed, delay the installation while you ventilate the area and increase heating. The installer and the source are fully responsible for verifying the humidity level of the sub floor and ensuring that the humidity level is, and remains, within the prescribed limits.

# 2. VERIFY THE CONDITIONS OF THE SUB FLOOR

Verify and, if needed, correct the solidity of the sub floor. Since it must be absolutely flat, sand down any irregularities with 20 grit sandpaper or fill them with compound. The sub floor should be secured with screws spaced at 6" to reduce the possibility of noise and cracks.

# 3. CLEAN THE SUB FLOOR

The sub floor must be clean and free of any contaminants.

# 4. INSTALLING A VAPOUR BARRIER

A vapour barrier must be placed between the floor and the sub floor.

WE DO NOT RECOMMEND INSTALLING VARNISHED HARD WOOD FLOORS IN BASEMENTS; NARROW, PRE-OILED HARD WOOD FLOORBOARDS CAN BE INSTALLED, EXCEPT FOR MAPLE.

WE DO NOT RECOMMEND INSTALLING HARD WOOD FLOORS ON CONCRETE. ONLY PRE-OILED HARD WOOD FLOORS CAN BE INSTALLED ON GLYCOL RADIANT FLOORS.

# 5. REMOVE BASEBOARDS AND DOOR SILLS

6. REMOVE 3/4" (2 CM) OFF THE BOTTOM OF DOOR FRAMES WITH A SAW TO LEAVE ENOUGH ROOM TO INSERT A HARDWOOD BOARD.

# 7. BE CAREFUL NOT TO DAMAGE THE FINISH

Utiliser une surface protectrice pour déposer les outils et le marteau à plancher en cours d'installation. Vérifier que le marteau n'ait pas de fuite d'huile. Passer régulièrement l'aspirateur pendant le déroulement de la pose pour éliminer les abrasifs et le bran de scie.

#### 8. DRAW AN INSTALLATION PLAN

Establish the direction of the boards and decide along which wall or starting point you want to begin the installation (if top of the stairs, start where there is a stair nosing). Ideally, floor boards should be installed either perpendicular to the floor joists or at a 450 angle.

# 9. MEASURE THE ROOM

Measure the room very carefully to ensure your new floor is installed at a right angle and is even. Note that corners rarely form perfect 900 angles.

#### **10. OPEN A FEW BOXES AND LAY DOWN THE BOARDS**

To get the best results possible, lay down the boards across the whole room, as they will be installed, to ensure that you mix colour and shades harmoniously. Remove unwanted boards or move them to another spot. Match the boards with the transition mouldings and quarter rounds, as closely as possible.

TIP: BE CAREFUL NOT TO UNINTENTIONALLY CREATE PATTERNS WITH THE WOOD'S NORMAL COLOUR VARIATIONS. KEEP THE LESS PERFECT BOARDS FOR LESS VISIBLE AREAS.

#### INSTALLATION

VERY IMPORTANT: THE INSTALLER IS THE LAST PERSON TO INSPECT THE BOARDS. ANY BOARD WHOSE GRADE IS DEEMED UNACCEPTABLE MUST NOT BE INSTALLED.

# 11. TRACE A LINE TO ENSURE THE FIRST ROW IS PERFECTLY

Use a chalk line to trace a guide parallel to the starting wall. Depending on the width of the boards you are installing, add 3/4" (19 mm). This measurement corresponds to the area needed for the expansion joint and the tongue. For example, if you have chosen to install 2 1/4" (57 mm) boards, trace the line 3" (75 mm) away from the starting wall. This guide line must be perpendicular to the adjacent wall. It is absolutely crucial that you begin the installation at a perfect square angle.

#### TIP: CHOOSE THE LONGEST AND STRAIGHTEST BOARDS FOR THE FIRST ROW.

#### 12. LAY DOWN, PIERCE AND NAIL THE FIRST ROW

The first rows must be nailed by hand with a hammer, a punch and finishing nails because the wall is too close to use a nail gun. Install the first board with the tongue side along the starting line and the groove side facing the starting wall. Proceed from right to left, leaving 1/4" (6 mm) between the edge of the board and the perpendicular wall on your right. Pierce and nail on top of the board, as close to the wall as possible, approximately every 4" (10.16 cm). Floor mouldings and baseboards will hide the nail heads. Install the following boards by moving to the left and continue until you have to cut the last board to finish the row. Leave a 1/4" (6 mm) gap between the wall and the edge of every last board of every row.

# 13. RE-USE THE CUT BOARDS TO BEGIN THE NEXT ROW

The length of the remnant of the board you cut to finish the first row, should be long enough to allow you to start the second row. This method will reduce losses due to cuts. The remnant should be at least 6" (150 mm) longer or shorter than the board used in the first row. This will prevent the joints from lining up in an unattractive pattern.

# 14. NAIL THE FIRST ROWS BY HAND

The first rows must be nailed by hand with a hammer, a punch and finishing nails because the wall is too close to use a nail gun. The nails must be nailed along the tongue of the board, about every 4" (100 mm).

# 15. USE THE NAIL GUN AS SOON AS YOU CAN

Install the subsequent rows in the same manner but start using the nail gun.

• THE DISTANCE BETWEEN THE NAILS MUST BE ABOUT 8 TO 10" (200 TO 250 MM) FOR 2 ¼" BOARDS AND ABOUT 6 TO 8" (150 TO 200 MM) FOR 3 ¼", 4 ¼" ET 5 ¼" BOARDS; AND MUST BE OVER 3" (75 MM) AWAY FROM THE EDGE OF EACH BOARD.

NOTE: THE NAIL GUN IS A MUCH BETTER CHOICE THAN A STAPLER BECAUSE STAPLES TEND TO BREAK THE TONGUE WHEN THE BOARDS EXPAND OR RE-TRACT DURING SEASONAL CHANGES.

#### FINISHING

# 16. NAIL THE LAST ROWS BY HAND

You must install the last four or five rows as you did the first rows because of the proximity of the wall. You may have to cut the board installed along the wall to leave the 3/4" (19 mm) needed for the expansion joint.

# **17. INSTALL THE BASEBOARDS**

Install the floor mouldings as well as the stair nosing and riders. Re-install the baseboards and the quarter rounds (if needed) by nailing them to the wall, not to the floor, as this will allow the normal movement of the floor to occur. When installing boards in an adjacent room, be careful to choose boards whose shade matches harmoniously with the already installed boards.

# **18. CLEANING THE FLOOR**

After you have completed the installation, vacuum the floors thoroughly. Spray some water or hardwood cleaner on a cloth-covered duster and wipe the floor dry.

# **19. INSTALL FELT CUSHIONS UNDERNEATH ALL FURNITURE**

Place furniture slides underneath the legs of your kitchen appliances and under furniture to avoid damaging your floors when you move them.

#### 20. LIFT FURNITURE WHEN MOVING IT

TIP: KEEP A FEW REPLACEMENT BOARDS FOR FUTURE REPAIRS.