

Installation guide

engineered platforms

ABOUT INSTALLATION

To ensure that your hardwood floor is installed properly, the manufacturer recommends that you follow the installation instructions whether you install it yourself or hire an authorized professional installation company.

- The manufacturer cannot be held responsible for the poor quality of the installation.
- If you decide to hire an installer who will install your hardwood 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, the appearance and arranging the boards according to the natural color variations of the species selected. The manufacturer cannot be held responsible for any error due to the installer's bad judgment.

It is the owner's responsibility to ensure that the wood delivered is the wood that has been ordered and chosen. 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

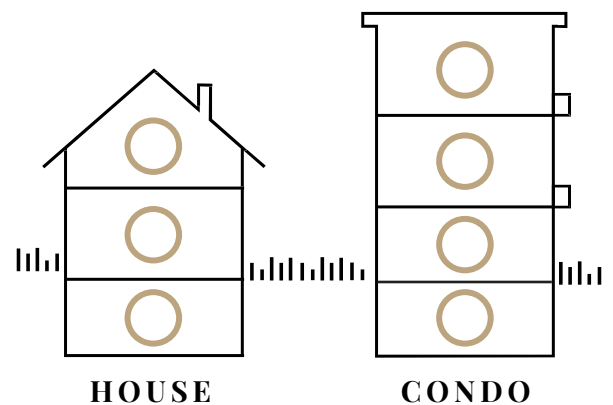
- engineered products.

Depending on the chosen product, a 7 to 20 % material waste allowance should be included within your total square footage to allow for material defects. The use of wood putty, filler or stain might be required during the installation process and is considered an industry standard.

If at any time you feel that in any way our the manufacturer product is not to standard in reference to appearance, width, color, sheen,

- milling tongue or groove placement, STOP installation and contact us immediately.

LOCATION



The manufacturer engineered floors can be installed in the basement as well as on the upper floors.

- Vacuum cleaner or broom
- Leveling bar
- Tape measure
- Scraper
- Chalk line
- Drill
- Jamb saw (for undercutting door frames and casing)
- Wood/cement moisture meters
- Circular saw
- 3M tape or painters tape
- Tapping block
- Chisel
- Chop saw or hand saw
- Hammer
- the manufacturer touch up and maintenance kit
- Recommended adhesive
- Last board puller is highly recommended

HANDLING AND STORING

wood 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. 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 35% and 50% approximately) throughout the year.

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.

SUBFLOORS

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.

2_ DRY

Conduct a moisture test in different areas of the subfloor and record your readings. For plywood, the percentage moisture difference between the hardwood floor and the subfloor must not exceed 2 points 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 (Tramtex 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 materials that could cause a problem with the adhesive adhering to the substrate.

4_ ADHESION OF THE GLUE

An adhesion test must always be carried out before installation. For OSB sub-floors (Advantech, Stable edge, Norbord ...) which may contain wax and interfere with the adhesion of the adhesive, we recommend sanding the surface to remove the wax before doing the test.

5_ FLATNESS

Using a straight edge or level, check to see if the subfloor (concrete) is within 3/16" in 10' or 1/8" in 6'. 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 p.s.i. 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).

6_ FOR THE PURPOSE OF ACOUSTICS AND STABILITY

We recommend the installation of an underlayment up to 1/8" (3 mm) thick with a maximum compression of 20 percent, contact us for any other type of acoustic underlayment. You must also install a vapor barrier to avoid any deformation of the hardwood from 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 OR subfloor plywood) that may cause improper installation (refer to point 4 in section "Subfloor conditions and inspection"). You may correct these irregularities by using a self-leveling concrete. Please contact our customer service agents for more details and to obtain a products authorized by the manufacturer. Our engineered products are designed to perform on concrete, plywood or O.S.B. subfloors. Subfloors can be made of different material as long as they are structurally strong enough to support the overall weight of the manufacturer.

For optimized acoustic and stability performance, we recommend an acoustic underlayment between subfloor and hardwood planks or any other underlayment with double-glued characteristics. 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”.



IMPORTANT: Le tapis mur à mur et les revêtements souples doivent être enlevés avant l'installation de votre nouveau plancher de bois franc.

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 2'x2' (60 x 60 cm) 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 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 lbs. / 1000 ft² per 24 hours. If so, but less than 7 lbs. / 1000 ft², one can use an approved waterproof membrane to cover the concrete. Never install a hard-wood floor when the calcium chloride test exceeds 7 lbs. / 1000 ft² per 24 hours. Even if the test indicate that the subfloor is dry, it is preferable to use a vapor barrier because conditions can change. Concrete leveling is a very important point. Concrete must be flat/level within 3/16th over a 10 ft. span (< 5 mm over 3 m or 1/8" in 6').

RADIANT HEATING

To apply the manufacturer engineered 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 be turned off and allowed to cool to room temperature before installing the floor. 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 29°C / 85°F.

Moreover, if radiant heat pipes are exposed or apparent from the subfloor, a 3/8" (9,5 mm) plywood or a concrete layer of 1/2" (12.7 mm) must be used to cover the pipes in order to spread out the heat more evenly.

WARNING

The warranty of the manufacturer floor could be void if an improper use of installation of a radiant heat system is demonstrated.

GLUED DOWN INSTALLATION

Use only the manufacturer recommended 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. 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.

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NOTES

- **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 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-degree 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.**
- **On large concrete installations, use more than one trowel as teeth will wear down.**
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STEP 1

We recommend that planks be installed parallel to the outside wall which is usually the longest and straightest. Therefore, snap a chalk line measuring the products width and thickness out from wall ($4 \frac{1}{4}$ " board width + $\frac{3}{4}$ " board thickness for expansion= 5" or ≈ 13 cm out from the wall).

STEP 2

Spread out a sufficient amount of adhesive so you can work within the available set up or work time. The freshly applied adhesive must leave trowel marks/trowel ridges. Only apply adhesive up to your chalk line and not over it.

STEP 3

Use 3 to 4 cartons at a time. Mix in or use boards that range in color, grain, and length. Place the planks into the wet adhesive with the groove side on the chalk line and facing the outside wall. This is the same direction to that of a nailed/stapleddown installation. Ensure that the 1st row is exactly on the chalk line. Use different board lengths, grain, and color tones within each carton to give you a better visual of natural wood.

STEP 4

Cut off the last piece in your starting row, and leaving the proper expansion space from the wall $\frac{1}{2}$ " (13 mm) from the wall and use it as your 1st piece or starter board for the 2nd row. It is best to not use a piece under 6" (≈ 15 cm) as they tend to move out of position. Continue on each row, engaging the groove into the tongue along the side 1st, then the end to be engaged 2nd. Avoid if possible, end joint cluster by staggering ends by twice the plank width or approximately $8 \frac{1}{2}$ " (21,5 cm) on $4 \frac{1}{4}$ " wide flooring. If any adhesive comes in contact with the face of planks, use adhesive remover before it dries. Figure 1.1 and 1.2

STEP 5

To keep your planks from moving out of position, we highly recommend the use of 3M Blue masking tape or a painter's tape. Do not use any regular masking, duct, or electrical tapes as they can leave a film on the plank face. Apply tape 90 degrees to row direction with approximately a 15-16" (38 to 41 cm) long piece; or long enough for 3-4 rows wide. Lap over or curl up the tape at one end to allow for fast, easy removal. Place tape at 48" (1,20 m) apart or across throws.

STEP 6

Complete the field area. For the last board, leave again a proper expansion gap $\frac{1}{2}$ " (13 mm) away from wall. If it is necessary to finish the last row with boards less than a full board width wide, then cut or rip along board width using a table saw. Always use safety glasses.

STEP 7

Before installing the last plank, choose the one that matches the moldings.

STEP 8

Avoid any traffic on your new installation for 24 hours. If this is unavoidable, use a kneeler board to help distribute the weight and movement.

STEP 9

Clean up your trowel and hands using the adhesive remover.

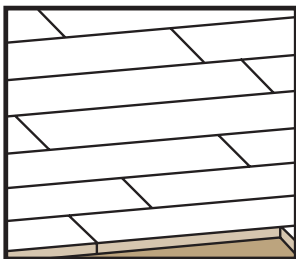


FIGURE 1.1
(CORRECTE)

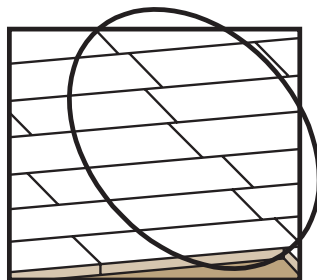


FIGURE 1.2
(INCORRECTE)