



## **Woden Flooring Engineered Hardwood Installation Guide**

We would like to extend our congratulations on your recent purchase of a new floor from Woden Flooring. Your excellent selection of our product is much appreciated, and we are confident that it will provide you with years of use and enjoyment.

To ensure that you have a smooth and successful installation experience, we kindly request that you carefully read all the information on this page. This will provide you with important details about storage, preparation, and installation of your new hardwood floor.

### **STORAGE & HANDLING**

The behavior of hardwood is subject to the temperature and humidity levels in its surrounding environment since it is a natural material. When the relative humidity level is high, all wood products will expand, and when the relative humidity level is low, they will shrink.

To ensure optimal performance and longevity of your engineered floor, it is critical to maintain the relative humidity level between 35% and 55% and keep the room temperature consistently between 18 C (65 F) and 24 C (75 F) where the floor is installed. This applies to all stages, including shipping, storage, installation, and beyond. Please note that failure to adhere to these conditions will result in the voiding of your product warranty.

Please take caution when transporting flooring products and avoid doing so under rainy or damp conditions. Handle and unload these products with care and store them in a dry and well-ventilated area. It is essential that the building be fully enclosed, including windows and doors, and that all wet work, such as cement work and plastering, is completed and dry before flooring is delivered. The HVAC systems must be in place and operational for at least 14 days before the installation of the flooring and must continue to operate during and after installation.

It is crucial to avoid installing hardwood floors in areas exposed to excessive moisture. Before and after installation, your hardwood floors will absorb or release moisture, causing them to expand in the summer and contract during the winter. Ensure that acceptable humidity levels are maintained both before and after the installation of your wood flooring.



## **SUBFLOORS AND FLOOR PREPARATION**

### **Subfloor Conditions**

To ensure a successful installation, it is imperative that your subfloor is structurally sound. Prior to the installation of your floor, make sure that the subfloor is adequately nailed, screwed, or glued down. Failure to do so may result in issues such as squeaking and more. It is also essential to check that the subfloor is level and flat before installation. Installing hardwood on uneven subfloors may cause end joint separations. Furthermore, the subfloor must be clean and free of any debris that could interfere with the floors or installation. Lastly, it is crucial to measure the moisture levels of the subfloor using a moisture meter and ensure that they are dry before installation. Moisture levels should not exceed 4 percent for concrete and 12 percent for plywood. Taking these steps will ensure that your subfloor is in optimal condition for the installation of your new floor.

### **Subfloor Types**

#### Plywood

Our engineered products are compatible with plywood subflooring. It is recommended to use ¾” plywood for optimal results, although a minimum thickness of ⅝” can be used.

#### O.S.B.

If you're considering an alternative to plywood, Oriented Strand Board (O.S.B.) is an option. It's composed of 3-4 inch wood strands that are layered, glued, and pressed. To ensure durability, we suggest using ¾" or 23/32" stamped exterior grade O.S.B. While building codes in Canada require a minimum of ⅝" O.S.B., we highly recommend utilizing glue assist for O.S.B. applications.

#### Concrete

Before conducting concrete moisture tests, it's crucial to wait at least 60 days for the new concrete to cure. There are multiple methods and testing devices available to measure the moisture level of a concrete subfloor.

### **Subfloor Testing**

#### POLYETHYLENE TEST

To conduct a surface test using the polyethylene method (ASTM D 4263), tape a 2' x 2' (60 x 60 cm) plastic film over the concrete for 48 hours. Any color changes or condensation on the film indicate moisture in the concrete, which may render it unsuitable for installing hardwood flooring. Please note that this is an empirical method and additional analysis may be necessary.

## **Radiant Heat**

The performance of engineered hardwood floors in response to radiant heat may vary depending on the specific type of radiant heating system used. Since the market for radiant heating is still evolving, with new types and models being introduced each year, it is difficult to provide reliable guarantees or assurances of compatibility with engineered flooring. For this reason, Woden Flooring does not provide warranties for installations of engineered flooring over radiant heat.

## **GENERAL INSTALLATION GUIDELINES**

Here are some important points to keep in mind when installing wooden flooring:

- Hardwood flooring should only be installed by an authorized professional. Failure to do so will render your product warranty void.
- It is the responsibility of the installer or homeowner to ensure that the job site, environment, sub-surface conditions, and climate meet Woden Flooring's requirements.
- Before installing the flooring, inspect it carefully. If you feel that the product is not up to standard in any way, stop the installation immediately and contact your retailer.
- The installer or homeowner is fully responsible for all installed hardwood flooring. It's advisable to include a 5%-10% waste allowance when calculating the total square footage needed.
- According to NWFA Installation Guidelines, crawlspaces or basement areas must be cross-ventilated and fully covered with proper vapor barriers.

## **Preparation**

1. Trim the doorjamb at the base of the door frames to match the thickness of the flooring. This will enable you to insert a strip of hardwood underneath.
2. When installing the flooring, make sure it's laid at either a 90 or 45-degree angle in relation to the joists.
3. Start installing the flooring from the wall that's the most level in the room.
4. Leave space for expansion around the perimeter of the room to accommodate mouldings. The amount of space required varies depending on the installation method used.
5. To allow the floor to move, do not attach mouldings directly to the flooring.

## **NAILED DOWN INSTALLATION**

Glue Assistance Recommendation for Wide Planks.

For hardwood planks wider than 5", Woden recommends the "glue assist + nailed down" installation method. The purpose of using glue in addition to nailing is to prevent squeaking of floorboards. Glue assistance is a supplementary process that does not replace or alter the normal nailing requirements for a nailed down installation.

Start by laying out the vapour retarder paper along the length of the room, ensuring that it touches the outside walls and overlaps the inside edges by 3” to 5” to fully cover the floor space. Vapour retarder paper is the recommended underlayment for hardwood flooring by NWFA.

1. Choose the appropriate air-assisted or manual nailery and ensure that you use the correct size cleats or staples. For 3/4” engineered floors, 16-gauge cleats or 2-inch nails are recommended.
2. Install the hardwood flooring perpendicular to the joist at a 90-degree angle.
3. Create an expansion gap of plank width + 3/4” around the perimeter of the room. Snap a chalk line for the width of a plank + 3/4” along the wall.
4. Rack out your floor using 3 to 4 cartons at a time, mixing boards that differ in color, grain, and length to achieve a natural wood look.
5. Align the edge of the boards with the chalk line, with the tongue side facing the field area and the groove side facing the wall.
6. Stagger the end joints by at least twice the plank’s width. For example, if you're using a 3 1/4” wide plank, the next row’s end joint should be no closer than 6 1/2”. Ensure that there is a nail approximately 1-2” away from both ends of the board.
7. Start using your nailery or stapler every 4-6” and 1-2” at both ends. Rack out your floor using 3-4 boxes, mixing longer and shorter boards, varying the lights and darks, and incorporating different grain patterns to achieve a natural wood look.
8. Continue each row. When cutting the last board of a row, you can use the remainder of the board for the next starting board if it's larger than 6”.
9. If necessary, finish the installation of the last row with a narrow width board by measuring the boards, allowing a 3/4” expansion area in your calculations, and cutting the boards on a table saw.

## **GLUE DOWN INSTALLATION**

To install T&G engineered floors with a thickness of 3/4”, it is important to carefully follow the adhesive manufacturer's instructions and test a small amount on the subfloor for proper adhesion bonding. Improper use of adhesive or trowels may void the warranty, so always use the trowel at a 45° angle and apply firm pressure. It is also recommended to install planks parallel to the outside wall, which is usually the longest and straightest. Lastly, remember to replace the trowel when the teeth are worn.

1. Choose an air-assisted or manual nailery and prepare the subfloor for moisture.
2. Spread adhesive on the subfloor, being careful to only apply it up to the chalk line and leaving trowel marks or ridges.
3. Use 3 to 4 cartons of planks at a time, mixing in boards with different colors, grains, and lengths. Install the planks with the groove side facing the outside wall and in the same direction as a nailed or stapled installation. Ensure the first row is exactly on the chalk line and use different board lengths, grains, and colors within each carton.

4. Cut the last piece of the starting row with proper expansion space from the wall and use it as the starter board for the second row. Continue each row, engaging the groove into the tongue along the side first and then the end. Stagger the ends to avoid end joint clusters.
5. To prevent planks from moving, use painter's tape perpendicular to the row direction and about 15-16 inches long, placed 48 inches apart or across rows. Do not use regular masking, duct, or electrical tapes.
6. Complete the project area, leaving a proper expansion gap from the wall for the last board. If necessary, rip a board width using a table saw.
7. Choose the last plank that matches the moldings before installation.

Avoid any traffic on the new installation for 24 hours. If necessary, use a kneeler board to distribute weight and movement evenly.

Here are some important notes to consider when installing hardwood flooring:

- Check that the concrete has an appropriate moisture level before installation.
- Adhesives have varying setup times depending on the brand, so be mindful not to spread the adhesive beyond your working time.
- Use a proper adhesive remover to immediately clean any adhesive that comes into contact with the face of the hardwood.
- Do not slide or drag boards over the applied adhesive, as adhesives have an elastic memory and can shift away from their intended position.
- Replace worn trowels instead of trying to create your own notches by cutting teeth out with tin snips. Even slight imperfections can affect the floor.
- Open time for adhesives will vary depending on the climate, region, or humidity of the dwelling.
- Occasionally check that you have enough adhesive transfer on the back of the hardwood planks for good adhesion.
- Do not install cabinets or walls on top of the flooring.
- The installer is responsible for ensuring that the cleat is properly set, as dimpling of the wood face is not considered a manufacturing defect.