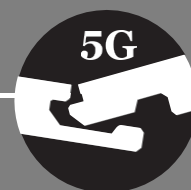


# INSTALLATION GUIDE

FLOATING WOOD FLOORING WITH 5G-JOINT



**WOODLAND  
RESERVE®**



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## INSTALLATION REQUIREMENTS FOR FLOATING WOOD FLOOR

### General

Wood is hygroscopic, i.e., it is a “living” material. Depending on the ambient air humidity and temperature, the material either emits or absorbs moisture. This is associated with a change of volume (swelling or shrinkage). It is therefore important that there is an “expansion gap” in between the floor and the wall and other fixed objects when a wood floor is floated. To stop the floor absorbing moisture prior to installation, it is important not to open packaging until just before installing.

Many mistakes and damage to the floor can be avoided by studying the instructions before starting installation and then following them carefully.

**Note** that moisture levels in new build premises often remain relatively high by the time wood floors are installed.

To avoid damage, it is important that the relative humidity during and after installation is between 30-60%. The temperature of rooms and materials must be between 55-85°F. A wood floor must not be installed until all other trades, such as painters and tilers, have finished their work and the site has the correct RH.

Moisture protection is necessary for floating floors.

**The floor must be oiled after installation and prior to use. Satin Oil is required for ongoing maintenance of the floor.**

A vapor barrier on the following subfloors, whatever their age, is obligatory for the reasons given below:

- concrete floor lying directly on the ground (ground-supported slab)
- floor above warm or humid area (i.e. boiler room or laundry room)
- structural floor above a ventilated crawl space foundation
- lightweight concrete floor structures
- underfloor heating

**If the subfloors relative humidity is higher than 90%, plastic sheeting will not provide a sufficient vapor barrier.**

Wood floors should always be laid staggered (minimum of 20" between joints) in every row, even in small areas such as hallways. Distributing the short ends evenly means that the floor will remain flat and level even during seasonal climate changes.

Products and installation methods follow the guidelines set out in the NWFA (National Wood Flooring Association) standards.

### General preparations

- Store the floorboards in their packaging.
- Read the instructions carefully before installing.
- Open the packs only when needed during installation.
- The subfloor must be dry, level, clean and solid.
- Check the humidity of the subfloor. Subfloors consisting of newly cast concrete, ground-supported concrete floors, above warm or humid areas, over crawl space foundations or over an underfloor heating system must first have age-resistant polyethylene sheeting or underlayment laid to protect against moisture. Lay the sheeting with a minimum overlap of 8". **If the subfloors relative humidity is higher than 90% plastic sheeting will not provide a sufficient vapor barrier.** Any moisture problems should be taken care of before starting to install the floor.
- The rooms relative humidity shall be between 30–60% RH. The temperature of the room must be between 55-85° F
- Where applicable, an intermediate layer can be laid on top of the sheeting to reduce impact noise. Use 2–3 mm polyethene foam in combination with the sheeting. Butt the edges of the intermediate layer. If impact sound reduction is required, please contact an acoustics specialist.

Put damaged or faulty boards to one side. They may be surplus or useful for finishing the project.

The 5G-joint helps reduce errors during installation. If you make a mistake, boards can be taken up and re-laid quickly and easily which simplifies the process.

We recommend that you consult your flooring supplier regarding building moisture, if you want to lay a large floor or if anything else is unclear.

## INSTALLING WOOD FLOORS OVER UNDERFLOOR HEATING

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Make sure that all the necessary tests on the underfloor heating system have been completed before the flooring installation begins.

### Installation

The working temperature (materials, subfloor and room air) during installation must be between 55-85° F. As with installation where there is no underfloor heating, the relative humidity (RH) of the air must be between 30-60% before, during and after installation.

**Note** that a cold subfloor warms up slower than the room air.

**Please Note** maximum floor temperature cannot exceed 81° F.

**Note** that the requirement for expansion gaps at door openings is greater with underfloor heating because the floor moves more. Remember that a floor installed over underfloor heating is more vulnerable to moisture (high RH) than an unheated floor because the floors moisture content varies over a wider range.

A vapor barrier of an approved type is required.



## WHAT TO CONSIDER BEFORE INSTALLATION

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### Scheduling installation

Wood floors must not be laid until all other work, i.e. painting, wallpapering and tiling is completed. The site must have the correct RH. This avoids contamination and moisture damage to the floor.

### Storage

Do not open the packs of flooring until you are ready to install. Open the packs only when needed during installation.

### Installing boards in patterns

We recommend gluing to the substrate when the boards are to be laid in different directions in the same room. Floors cannot be installed with short ends against long sides.

### Fixtures

Fixtures, kitchen islands, partitions, etc., must never be fixed to the flooring in a floating installation. They can be fixed *through* the floor provided a space is allowed to prevent the fixed object from pressing down on and trapping the floor. There must be an expansion gap around the space.

Fix all the fixtures first, then the floor. If the wood floor needs to be installed under the fixture for any reason, there must be an expansion gap under the kickboard.

Modern kitchen units are normally fixed to the wall with supporting legs at the front resting on the floor - this is generally of no significance to the floor.

### Planning floor installation

Measure the width of the room and calculate the width of the last row of boards. If it is less 1/3 of a plank, you should also rip the first row of boards in half to equalize the widths of the first and last rows. Remember to include an expansion gap.

When installing floors with a 5G-joint, it is easier if you start on the longest side of the room with the most doors. If there are doors along the short side of the room, begin each row of boards there. The boards can be installed from both left and right as well as "backwards". If the area is geometrically complex think carefully about the best method of installation, where you should begin laying and suitable places for expansion gaps. Plan carefully to avoid exceeding the maximum width of 80'.

### Uneven subfloors

If small depressions in the subfloor are noticed during a floating installation they can be filled using felt paper (max. 3 layers). However, do not use more than one layer of underlayment because it is excessively soft.

### Choice of laying direction, maximum widths

We recommend laying lengthways because boards move less along their length than across their width. In narrow areas, such as halls, it is particularly important that the boards lie flat against the subfloor and must be installed lengthways.

### Cleaning the subfloor

Never leave sawdust or another organic residue on the subfloor. There is a high risk of mold if the space between the vapor barrier and the subfloor contains organic material and high humidity.

## WHAT TO CONSIDER WHEN INSTALLING

### Temperature and humidity conditions

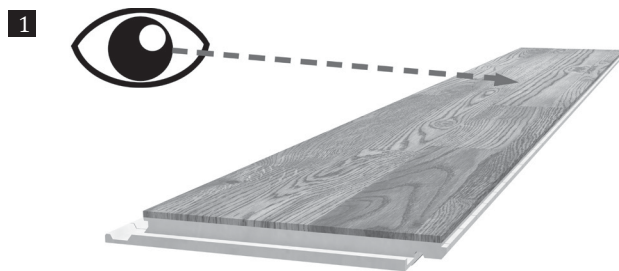
The working temperature when laying should be between 55-85°F. The relative humidity of the air must be between 30-60% before, during and after installation.

### Opening packs

The wood floor is supplied "furniture dry". If packs are opened too early the boards can absorb moisture and expand which makes them difficult to fit together. If packs have been opened they must be resealed carefully with tape to stop moisture getting in and adversely affecting the boards.

### Inspection

It is always easier to rectify faults if they are discovered early. Always make a habit of inspecting the product at the time of installation. Boards with obvious faults that are detectable before installation must not be used. Always make sure that inspection and installation are carried out in good light. *Figure 1.*



### End joints in small areas

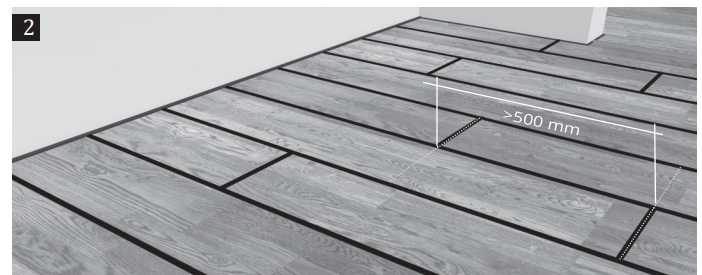
Even small areas must be laid staggered, i.e. all floor areas must have end joints in every row. The end joints of adjoining rows must be staggered by at least 20" to ensure that the floor remains flat and level during climatic variations, otherwise there is a risk that the floor could bow in high relative humidity. *Figure 2.*

### Door openings

When installing through door openings or archways the door opening or archway must be undercut to allow for expansion.

### Bowing

We aim to manufacture boards that are slightly convex lengthwise to make the floor easy to lay. Do not forget to stagger the end joints in accordance with the installation instructions.



## WHAT TO CONSIDER AFTER INSTALLATION

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Oil the floor immediately after installation.

An oiled floor accentuates the natural structure and grain of the wood - It is important to oil the floor after installation and prior to use in order to nourish and protect the floor.

Spilt liquids must be wiped up immediately. This is particularly important for Beech and Hard Maple because they move more than other species due to their greater sensitivity to moisture.

For more detailed information about care and maintenance, refer to the Floor Care Guide & Guarantee.

### Protective covering

If further work is to be carried out in the room where the floor has been installed, the floor must be protected with a vapor permeable material (i.e. paper). Check that this will not discolor the floor. Note that some commonly used types of papers do not allow moisture to pass through and have a wax coating that may be transferred to the wood floor - this causes undesirable gloss variations. Make sure oil is completely dry before covering.

### Tape

Tape only to the protective covering, not to the wood floor.

### Ventilation

When a floor is installed in a new building, ensure adequate ventilation to prevent building moisture damaging the floor. Maintain room RH between 30-60%.

### Color changes

Wood is a natural material that gradually matures over time - this happens most quickly after installation. To achieve an even surface, area rugs should not be laid on the floor during the first few months. If there are already light patches from area rugs etc., they quickly mature when exposed to daylight.

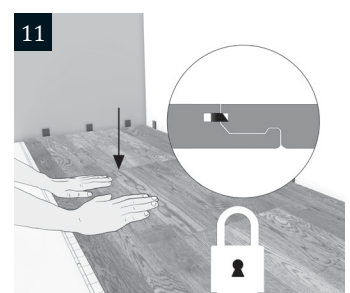
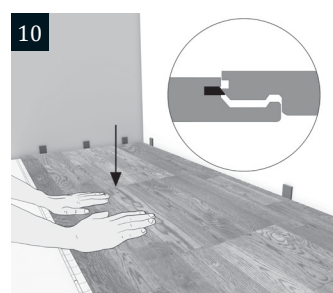
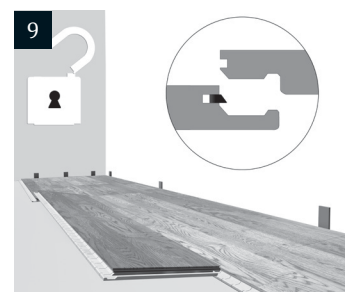
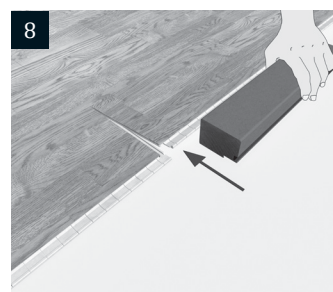
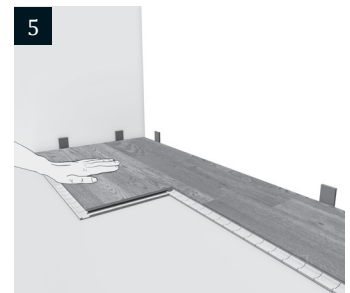
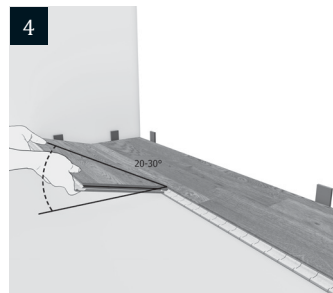
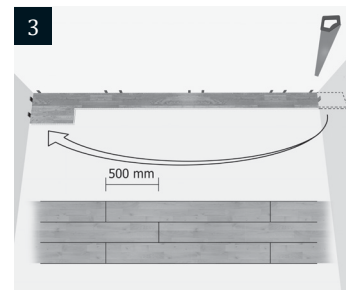
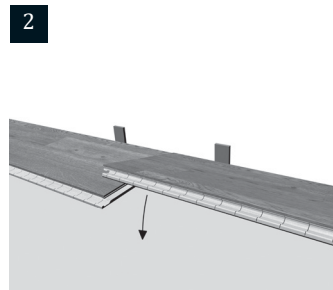
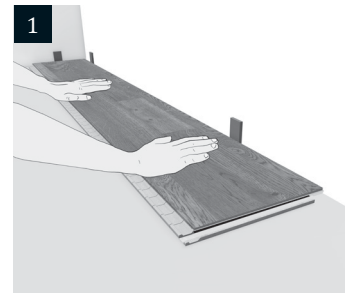


## INSTALLATION INSTRUCTIONS FOR WOOD FLOORS WITH 5G-JOINTS

- Installation requires a vapor barrier to get started.
- First, calculate how many floorboards are required. If the last row is less than 1/3 wide, rip the first-row boards in half. When installing floors with a 5G-joint it is easier if you start on the side with most doors. If there are doors along the short side of the room begin each row of boards here. The boards can be installed from both left and right.

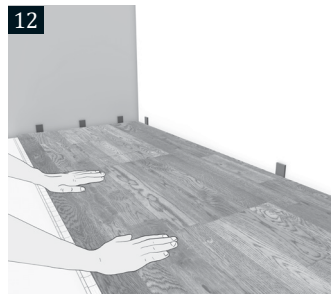
- The maximum width is 80'.

1. Begin in one corner and work from left to right with the long underlip (groove side) facing into the room. The gap between the long side and the wall can be adjusted once three rows have been laid. Insert a wedge on the short side of the board.
2. Angle the floorboards as shown in figure 2. Continue in the same way for the whole of the first row. When the end joints are engaged you will hear an audible 'click'.
3. Cut the last board in the first row to the right length and start the next row with the piece left over. The boards end joints must be staggered a minimum of 20".
- 4-5. When assembling the floorboards the angle is important and should be a minimum of 20° and a maximum angle of 30°. When assembling the boards, start by positioning the board into the groove of the previous row.
- 6-7. Position the board using the correct angle (20-30°). Adjust the board into a position where the two short edges touch at the corner in accordance with the illustration. Make sure that the joint is free from dust or other particles.
- 8-11. Fold down the board into a position aligned with the surface of the previous board – this can be facilitated using a Hand block. Positioning the boards requires only light taps on their edges. Hold the tapping block lengthways against the edge of the board keeping one end in contact with the board, tap the board with the block. This applies the correct force and the board will not be damaged.





12. When three rows have been laid the distance from the floor to the walls can be adjusted. Place wedges between the floor and wall.

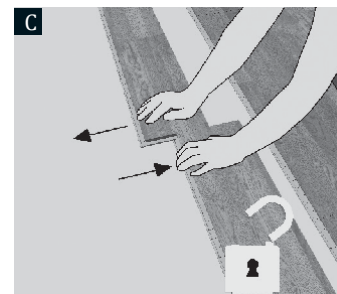
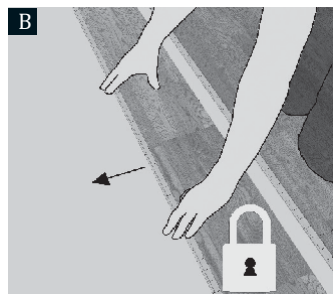


13. The final board is then sawn to the correct width. Lay the final board on top of the last board row with an approximate 1/4" displacement to the wall. Mark the section to be sawn using a piece of board with a locking strip. Lay it against the sawn board. Do the same with the next piece.



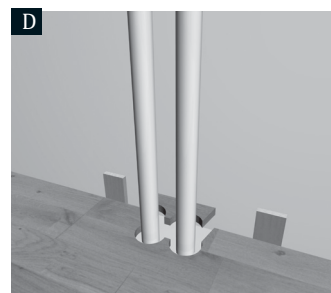
## Dismantling

A, B, C. The installed boards can be dismantled. Fold up a whole row and unlock the short end joint by sliding the boards horizontally.



## A few problems that are easy to solve.

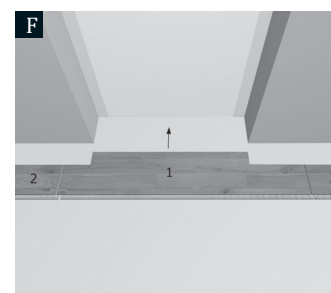
D. Drill holes in the board to accommodate heating pipes. The holes must be at least 1" larger than the pipe's diameter. Make saw cuts as shown in the diagram. When the board is fitted the sawn piece needs to be glued in place and the holes covered with pipe collars.



E. If you must cut a door architrave use a floorboard as a base so you get exactly the right height. If you need to knock a board along its length, protect the boards joint with a cut piece from a short end inserted into the joint.



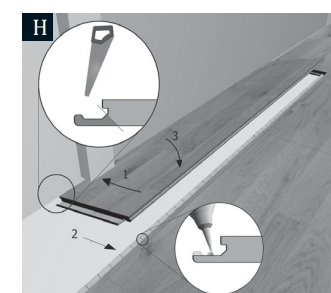
F. Always begin each row of boards from a doorway. This makes it easier to push the prepared board under the frame. With the 5G-joint the other boards in the row can be laid from either left or right



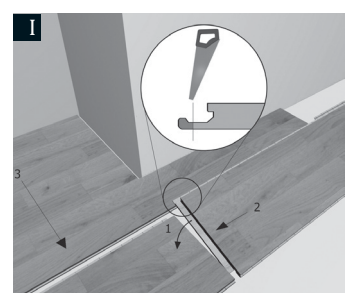
G. When laying the boards short end against a door frame, the board needs to be adapted to the frame or the door frame needs to be undercut. Lay the board as close to the door frame as possible and then knock it in carefully from the short end. Protect the board using a cut piece (i.e. a suitable short end).



H. If you are unable to angle the board in at a door frame, plane off 2/3 of the locking joint. This allows you to tap the board into place. Apply adhesive to the underlip to avoid weakening the joint.



I. When installing under reveals it is often easiest to fit these boards before the return wall board is laid. The entire subfloor must be covered with underlayment. Boards must be staggered at a minimum of 20".



## OIL FLOOR MAINTENANCE

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How often the floor needs maintaining depends on use, cleaning, exposure to sunlight etc. A couple of additional, more frequent, oil treatments carried out in the first year gives an extra-strong and easy to clean surface. The normal frequency of subsequent oil maintenance is at least twice a year. Remember that areas subjected to greater wear than the rest of the floor can be given localized maintenance. The higher the frequency, the better the results. The surface to be maintained (re-oiled) must be dry and free of dust and dirt.

### Oiling Instructions

1. Vacuum or sweep the floor carefully.
2. Clean the floor using a pH neutral cleaner and microfiber mop. The surface should be dry again within a minute. For very dirty floors replace the microfiber mop using a soft brush.
3. Remove cleaner and dirt using a wrung-out cloth.
4. Dry the surface using a clean, dry cloth and leave the floor for 30 minutes. For very dirty floors with heavy texture it might be necessary to repeat steps 2 - 4.
5. Apply a thin layer of Satin Oil on the surface and spread evenly with a microfiber mop so that no sticky parts are left. Applying too much oil will result in a sticky surface that will attract dirt and debris. After a drying time of 3 - 5 hours the floor can be used with care but needs 12 hours before lighter furniture can be moved back. Wait 24 hours to move back carpets and heavier furniture.

### Recommended Dosage

- After Installation: 1 liter of Satin Oil per 2,000 ft<sup>2</sup>
- Normal to lightly dirty floors: 4 ounces of Satin Oil per 300 ft<sup>2</sup>

## RENOVATION

After extended use it may be necessary to renovate with a new oil treatment.

1. Apply pH neutral cleaner evenly over the surface.
2. Clean the surface using a microfiber mop. Mop until the dirt has been dissolved. For very dirty floors replace the microfiber mop with a soft brush.
3. Remove cleaner and dirt using a wrung-out cloth.
4. Dry the surface using a clean, dry cloth and leave the floor to dry for 30 minutes.

**For very dirty floors or on floors with heavy textures, it might be necessary to repeat step 1 - 3.**

5. Apply Satin Oil on the surface. Use microfiber mop to spread the oil evenly. This is done by rubbing both along and across the floorboard until a very thin and even oil layer is reached.
6. Let the surface rest for 10 – 15 minutes.

**It may be necessary to repeat steps 5 -6 if there are areas with excessive wear.**

7. Polish the surface using a new dry microfiber mop. This is done to secure that the oil has been evenly spread.

Please observe that two layers of thin oil gives a better result than 1 thick layer of oil. Applying a high amount of oil will result in a sticky surface that can attract dirt and debris.

### Recommended Dosage

4 ounces of Satin Oil per 300 ft<sup>2</sup>.