

Installation Guidelines

⚠ ATTENTION OWNER / INSTALLER

Please carefully read and adhere to the following instructions before installing the flooring. Failure to do so may result in voiding the warranty of the product.

◆ Quality Check

Before installation, thoroughly inspect the flooring material to ensure it meets the requested quality standards. Verify that the material is free from defects and matches the desired specifications.

◆ Quantity Verification

Prior to starting the installation, confirm that the quantity of flooring is accurate and sufficient for the project. Double-check the quantity to avoid any shortages during the installation process.

◆ Colour and Finish Confirmation

Verify that the flooring material matches the specified colour, finish, and sheen level.

◆ Job-site and Substrate Requirements

Must ensure that the job-site environment and sub-surfaces meet or exceed all applicable standards. Refer to the installation instructions section inside the carton for specific requirements. It is crucial to follow the recommendations of the construction and materials industries, as well as local codes

By carefully following these instructions, you will help ensure a successful installation and maintain the validity of the warranty.

Areas of Attention

Colour and Timber Variation

Wood is not a homogeneous material, and differences across planks are commonplace, in the same way there are differences across trees.

Timber flooring is not colourfast and that UV light will change the colour of your timber floor as part of a natural oxidation process.

Compartmentalisation

Large multi room installations must be compartmentalised i.e. separated at doorways. This gap is then covered with a cover trim, universal or H trim. Consult your retailer or contractor if you are unsure about the required locations. Additionally, for a floating installation, ensure that the compartments are no larger than 60 sqm in size i.e. no unseparated areas exceeding 60 square metres.

In areas of higher moisture or temperature fluctuations e.g. with direct windows, poorly insulated space or not completely occupied houses, please ensure compartments are no larger than 40 sqm in size and 6 metres in width and 10 metres in length. Note any areas not deemed a comfortable living environment are not likely suitable for the floor so please reconsider your need to install the floor.

Expansion Gaps

For floating installations, expansion gaps should be left around the perimeter of the floor:

- ◆ Floating: Minimum 12mm
- ◆ Direct Stick: 4 – 5mm (larger expansion gaps are acceptable)
- ◆ Direct Stick on Underlay as a Dual Bond: 12 – 14mm (ensure the underlay is suitable for direct stick and appropriately bonded to the subfloor)

This gap provides space for the flooring to expand and contract if required. In areas of extreme humidity variations, consider a larger expansion gap. It is important not to have any direct lateral contact between the flooring and solid structures e.g. walls, cabinets and fixtures.

Around the perimeter of rooms, the use of scotia and skirting boards are recommended to cover the expansion gaps. Make sure to install these skirting boards against the wall and not to the floor and thick enough to cover both expansion and contraction gaps.

Installer Expectations

The installer assumes all responsibility for final inspection of product quality. The inspection of the entire floor should be done prior to installation and it is expected the colour, finish and quality is inspected before installation. Use reasonable selectivity and hold out or cut off pieces with glaring defects. If the flooring is not acceptable, contact your dealer immediately.

Before commencing any installation, ensure the environment of the job site and the condition and type of the subfloor are acceptable. Royal Floors does not assume any responsibility for job failures resulting from or associated with incorrect installation or maintenance.

Trims

Appropriate aluminium trims to help facilitate expansion / contraction and to adjoin other floor coverings are required for an appropriate installation. The primary groupings of trims are:

- ◆ **Flat / Cover / Universal Trim**
Bridges two floor coverings or allows for an expansion gap in a long run of flooring. It is also suitable for small differences in height between two floor coverings. The recommended trim is a two piece trim as supplied by Royal Floors.
- ◆ **Border End Trim or L Angle**
Finishes up the floor against a fixture or to meet other floor coverings. The recommended trim is a C or U shaped trim, or a two piece universal adjustable trim, or a flexible adhesive fixed L angle in shorter runs.
- ◆ **Ramp / Reducer**
Bridges floor coverings of two different heights and allows for up to 40mm height variations between two floor types. These may be two piece trims or flexible adhesive fixed trims.

Nested / Shorter Planks

Timber flooring can contain a plank that consists of multiple, shorter pieces, also known as “nested planks”. The amount of nested plank pieces per pack comprise of approximately 25% of the material. The total length of two nested planks will always be equal to the length of one standard plank.

Environment

Please note the flooring must be installed in a regulated and liveable environment to prevent possible damage not covered by warranty i.e. it should not be installed more than two weeks prior to occupation of the home. The floor is designed to perform in an environmentally controlled environment. Sensible protection of flooring from extremes are required, such as curtains, awnings, blinds, window tinting and humidity control devices.

Movement

Timber will expand and contract naturally, hence some minor sound may be present i.e. joint crackling or creaking. There is more movement and associated sound with floating floors and is not a major fault of the product. Subfloor unevenness will contribute to sound and should be rectified prior to installation.

Weight Restrictions

If installed as a floating floor, please follow the weight restriction and furniture placement recommendations below:

◆ Maximum Weight Capacity

Recommended weight capacity for floating floors are 200kg per square metre. Please ensure that the total weight placed on the floor does not exceed this limit. Exceeding the weight capacity can lead to structural issues and damage.

◆ Furniture Positioning

When positioning furniture or heavy objects on the floor, make sure to place the base or feet in the centre of the boards rather than directly over the joins. This distribution of weight helps to distribute the load evenly and prevents damage to the flooring. Avoid concentrating heavy objects on specific areas of the floor.

◆ Movement Restriction

Be mindful that placing heavy objects over a large area can restrict the natural movement of the flooring. This restriction can result in undesirable effects such as squeaking, gapping between boards, cupping, or even failure of individual boards. Distribute weight evenly and allow for proper floor movement.

Installation Site and Storage Instructions

Keep in mind the following when assessing an installation site:

Installed Last

The flooring should be the last thing to be installed, and should not be delivered until the building has been closed in and all other materials, such as cement work, plastering, and painting are completely dry. The concrete and plaster should also be cured and at least 60 days old. Check the basement and underfloor crawl space to ensure that they are dry and well-ventilated to prevent moisture damage.

Handle and Store with Care

Handle the flooring with care, and do not stand on the ends of boxes to avoid damage to the locking systems. Store the flooring in a dry place, but not directly on concrete or near outside walls. Place the cartons in the installation area.

Subfloor Requirements

Subfloor requirements as per standard floating flooring installations, that broadly meet 3 criteria:

◆ Flat

For an adhesive fixed installation, generally the subfloor deviation should not be more than 4mm over 2 lineal metres, as measured by a 2m straight edge. Flatness is generally more important than level, therefore a 2m straight edge should be used to check for flatness. Eliminate any localised unevenness such as humps, dips or roughness, as this may lead to breaking of the joints movement and noise, and potential damage to the joints in the floor. All timber-based subfloors should be lightly sanded, especially to smooth off edges and joins and remove any foreign substances such as waxes or paint to assist adhesion.

◆ Dry

For floating installations, a 100 – 200um moisture barrier should always be used (200 for higher moisture substrates), if not pre-attached to the selected underlay. The joins in the underlay must be sealed with a waterproof tape. All walls & vertical fixtures should have the membrane turned upwards and trimmed back

For direct stick installations, concrete subfloors should not exceed 75% RH and 3% CM (cement moisture content) when tested in accordance with AS1884-2012. Wood-based subfloors must not exceed 14% MC.

For direct stick installations, moisture is the most common reason for adhesive failure and thus a complete moisture barrier coating e.g. FLOOR+ POLY280 is recommended in every instance of an adhesive fixed flooring installation prior to the application of glue. Photographic evidence of testing data and application of a moisture barrier is required for warranty applications.

◆ Stable

The subfloor needs to be firm and not display any movement (which may be the case with movement in older timber floors, and squeaking or creaking may indicate this). The flooring can be installed over many existing fixed (not loose or floating) floor coverings such as ceramic tiles. In the case of ceramics, the grout lines must not exceed 3mm in width or depth.

Additional Underlayment

Floating floors require additional underlay. Foam underlays up to a maximum of 3mm are suitable, and thicker underlays generally become rubber and foam composite or rubber underlays. We warrant all [Everquiet® underlays](#).

If you are installing as a fixed approach and you choose to use underlay, you must only use Everquiet Rubber underlays. You need to glue the underlay to the subfloor, and the flooring to the underlay. For advice and support, please consult your retailer for further details and recommendations.

If moisture is a concern, please use our EVERQUIET IXPE HD 2mm underlay or rubber underlays in addition to a 200um Plastic Moisture Barrier with taped joins.

Underfloor Heating

European and American Oaks are suitable for installation with hydronic in-slab under-floor heating systems only. Australian Species are not suitable with any form of floor heating. The surface temperature from underfloor heating must not exceed 27 degrees celsius and the wattage should not exceed 60 watts/m².

Please note proximity to heat exposure from open fires or enclosed heating units may result in plank deformity and irreparable damage, and is not covered by warranty. Turn on the heating system for 3 weeks prior to laying

the floor and then switch off 48 hours before installation. When turning on the heating system, increase the temperature by 2 degree increments each day until you reach the correct temperature and follow the same process when reducing the temperature.

Installation Instruction – Floating T&G Installation (Straight Planks)

The maximum raft size should take into account the environment the floor is installed in i.e. in areas of higher humidity and closer to waterways, low altitude, coastal or more extreme climatic conditions, it may need to be individually assessed. The maximum raft size in width is 8m and length is 12m for a floating installation in a moderated humidity environment. Ensure Flat Cover trims are used in doorways between compartments so movement in one raft area does not affect another, which may cause bouncing, movement and creaking.

Pre-Installation and Planning

- ◆ Inspect all planks in sufficient light before and during installation. Planks with visible defects must not be used. Once installed, the planks are considered accepted by the installer and the end customer. **Faulty planks should not be installed and will not be covered by warranty.** If certain boards display slight bows or twists, put aside under weight and they will likely acclimatise and be easier to install later in the project. Slight bowing is acceptable and common in engineered timber.
- ◆ Ensure the subfloor is smooth, permanently dry, clean and free of all foreign matter.
- ◆ Lay out the underlay over the area of installation, according to manufacturers' instructions.
- ◆ Roll out the underlay across the room and tape the overlaps in the joins (ensure the PE moisture barrier is at least 100um thick and if there are any concerns of substrate moisture i.e. close to or above 3% CM, use a minimum of 200um barrier). If using rubber underlay without a moisture barrier, it is recommended to install the same moisture barrier beneath the rubber underlay prior to installation. In larger areas or where one run is more than 10m, or if exposed to environmental temperature or moisture changes, it is recommended a 200um PE is also used on the surface to assist natural flooring movement.
- ◆ Make sure the panels are mixed when installing, so you have sufficient pattern variations.
- ◆ Check that the doors can still open and close after the floor and underlay have been installed, with a minimum gap of 1 cm, to allow for natural expansion and contraction.
- ◆ For a nicer finish when the flooring meets architraves and door jambs we recommend undercutting them. This is optimally done prior to installation, where you can use a piece of flooring and underlay as a guide, and you can place a hand saw above it and then side them to cut the architrave or door jamb. You can then slide the flooring under the jam and out of sight, and tighten with a pull bar if needed.
- ◆ Do not install any cabinets, kitchen islands or other fixtures on top of floating floors. An expansion gap must be maintained when meeting cabinetry, columns, pipes etc.

Installation

- ◆ Select a starting wall that is long and visible, the first three rows will be installed parallel to this wall. Run the first row of plastic if required. If not required, proceed to roll out the first row of underlay. Lay the first row of boards (groove/female side to the wall) to assess the straightness of the starting wall. If the starting wall is undulating or uneven, square this row off to the other side of the room using a tape measure and scribe the first row of boards to cater for the undulations while accommodating a uniform expansion gap.

- ◆ Lay the first row directly against the wall. Apply the PVA CROSSLINKING glue as a continuous bead into the entire length of the floorboard groove – cover the entire floorboard groove, both the long and short ends. Then gently tap it into the next board (we will space off the first three rows later). Cut the end board and leave a 10 – 12mm expansion gap (or larger if required based on the environment).
- ◆ The offcut from the last board in the first row now starts your second row. (Note: Always ensure that the end joints are randomly staggered at least 300mm). Step and brick stagger patterns are not recommended, the boards must be randomly staggered.
- ◆ To install the first board of the second row, apply the PVA CROSSLINKING glue as a continuous bead into the entire length of the floorboard including the end join, and then gently tap it in. Continue installing the floor left to right using the offcut from row 2 to begin row 3. We can now slide these three rows off the starting wall and install the suitable sized spacers against the starting wall.
- ◆ Lay row 4 and the rest of floor by repeating the above instructions, make sure to stagger the end joints by greater than 450mm. Any small gaps present can be filled using a non-silicone-base filler.
- ◆ If using floor protection, you must clean, sweep, or, vacuum the installed floor before applying floor protection, so it is free of dirt and debris.
- ◆ Where skirting boards have been left in place, it is now time to fit colour-matched scotia mouldings to the perimeter of the floor. This covers the expansion gap after removing the expansion wedges. Alternatively, if skirting boards have been removed, replace with new skirting boards of minimum 18mm thickness, to allow coverage of the expansion gaps. Where greater expansion gaps are required e.g. 12 – 18mm, it is recommended a thicker skirting or an additional timber scotia or quarter round is attached to the new skirting board.
- ◆ Proper installation of finishing trims (i.e. expansion universal cover, flat cover, border and other aluminium trims) and wall mouldings (i.e. skirting boards, scotia etc.) are crucial as they provide room for natural movement and stability to the perimeter of the flooring.

Fixed Adhesive Installation

Royal 15/4mm Oak can be installed as a direct stick / glue down floor where it is directly adhered to the concrete / wood-based subfloor with glue that is trowelled onto the subfloor. Direct stick should only be attempted by flooring professionals with experience with solid or engineered timber floors.

The maximum raft size should take into account the environment the floor is installed in i.e. in areas of higher humidity and closer to waterways, low altitude, coastal or more extreme climatic conditions, it may need to be individually assessed. The maximum raft size in width is 20m and length is 30m for an adhesive fixed installation in a moderated humidity environment. Ensure Flat Cover trims are used in doorways between compartments so movement in one raft area does not affect another, which may cause bouncing, movement and creaking.

Pre-Installation and Planning

- ◆ Inspect all planks in sufficient light before and during installation. Planks with visible defects must never be used. Once installed, the planks are considered accepted by the installer and the end customer. **Faulty planks should not be installed and will not be covered by warranty.** If certain boards display slight bows or twists, put aside under weight and they will likely acclimatise and be easier to install later in the

project. Slight bowing is acceptable and common in engineered timber. **Do not install defective planks, if in any doubt please follow up with your retailer.**

- ✦ Ensure the subfloor is flat, smooth, permanently dry, clean and free of all foreign matter. Please thoroughly check the subfloor and refer to the instructions in the [Subfloor Requirements](#) section above. A moisture vapour retarder compatible with the adhesive is highly recommended on all adhesive fixed installations with risk of moisture that can affect the performance of the adhesive. The moisture barrier is rolled on and needs to be completely dry prior to installation. Refer to ATFA guidelines for subfloor requirements for adhesive fixed engineered timber installations.
- ✦ Large or heavy objects such as a kitchen island bench can be installed onto a direct fixed floor or installed later.
- ✦ Check that the doors can still open and close after the floor has been installed, with a minimum gap of 1 cm, to allow for natural expansion and contraction.
- ✦ The correct trowel is important for it to form a membrane that provides some moisture resistance, acoustic benefits and complete coverage of the subfloor and sufficient transfer to the back of the flooring. It is recommended that a minimum of 3 – 4mm V notch trowel is used, but follow instructions from the adhesive manufacturer. Jobsite conditions and type of substrate may affect the quantity of adhesive required, so always pull a board at the beginning of installation and periodically pull up small boards during the installation process to confirm adequate coverage and transfer.
- ✦ The correct glue is important and it is a requirement that the glue is “flexible” or “elastomeric”. Follow all instructions from the manufacturer and also apply a continuous damp proof membrane alongside the flexible adhesive. This will help prevent moisture from rising into the floorboards. Suitable adhesives include modified silane / modified silicone and polyurethane timber adhesives.
- ✦ Plan in advance for unnecessary foot traffic to be kept off the floor whilst the adhesive is curing. Plan the layout in advance to optimise visual characteristics, as timber has larger variations in colour and features, it is important to evenly distribute planks and hide heavily featured planks under cabinetry or furniture.
- ✦ The direction should be parallel to the longest wall or hallway.

Sometimes, additional rubber underlay may be used for acoustic benefits. For a fixed flooring installation, the rubber underlays must be glued to the subfloor (typically with a 3mm V notch trowel, but please confirm with the glue manufacturer).

When Installing (Straight Planks)

- ✦ Saw off both the long and short locking systems from the first row. This continues along the perimeter of the entire installation. Trowel down the glue and enough the first row of boards are seated in the adhesive.
- ✦ Make sure the panels are mixed when installing, so you have sufficient pattern variations. Aim to hide heavily featured planks under furniture, cabinetry or less obvious locations.
- ✦ For better visual and structural performance, wall end finishing planks should not be less than 200 – 300mm and short end joints on parallel planks should be at least 300mm or longer, lengthways in distance from the adjoining plank joint.
- ✦ During installation, remove any adhesive residuals on the flooring surface immediately prior to curing.

- ◆ Generally, you need to allow for 12 – 24 hours for adhesives to cure. Make sure to clean the floor after installation and then it is recommended to use floor protection to cover the floor if other trades are present.
- ◆ If using tape to hold down floorboards or trims during installation, please use low tack masking tape for up to a maximum of 72 hours.
- ◆ You must leave an expansion gap around the perimeter of the room of at least 10mm to allow expansion of the flooring. Installations that are greater than 15m in width or length will require the use of transition moulding to provide proper expansion space.
- ◆ Please do not walk on the floor where possible prior to curing. It can cause hollow spots and uneven distribution of glue, which is typically up to 24 hours. If unavoidable, use a kneeling board to distribute the weight.
- ◆ Make sure to check the transfer of adhesive, by removing smaller floorboards after laying and checking the back of the board for at least 80% coverage with adhesive.
- ◆ During laying, continuously check the joints to ensure they are tight and that the floor is aligned. Make sure the boards are staggered between 100mm and 300mm apart.

When Installing (Herringbone)

- ◆ Parallel laser or chalk line set out, start in the middle of the room/space, typically the installation will run to suit the longest wall. As you work the installation, continue with parallel laser or chalk lines to keep pattern alignment straight.
- ◆ Begin your installation in the middle of the room. Spread the professional direct stick adhesive out from the edges of the starter board and over a reasonable areas.
- ◆ Set the first left-tongue plank to the left-hand side of the starter board. The grooved side snug must be towards the starter board and the tongue side facing out towards the room. Please ensure the upper butt ends are aligned with the centre line. then press the right-tongue plank into place tightly and drop into the adhesive.
- ◆ Set the first left-tongue plank to the left-hand side of the starter board. The grooved side snug must be towards the starter board and the tongue side facing out towards the room. Please ensure the upper butt ends are aligned with the centre line. then press the right-tongue plank into place tightly and drop into the adhesive.
- ◆ Do not push the board across the subfloor (dragging the adhesive). Instead, hold the board and push it in at an angle, and then drop downwards onto the subfloor.
- ◆ Keep the parquetry tight and tap if necessary to avoid gaps. Work small areas at a time to avoid adhesive curing, clean up any excess adhesive squeeze out as you go with wipes.
- ◆ During installation, remove any adhesive residuals on the flooring surface immediately prior to curing.
- ◆ Generally, you need to allow for 12 – 24 hours for adhesives to cure. Make sure to clean the floor after installation and then it is recommended to use floor protection to cover the floor if other trades are present.
- ◆ You can remove any spacing wedges and cover the expansion gap with skirting boards (fixed to the perimeter walls).

ⓘ IMPORTANT NOTES – HERRINGBONE (DIRECT STICK)

- ✦ Each box contains 6 Left boards and 6 Right reverse boards. A left-tongue plank and a right-tongue plank will be required to form a join.
- ✦ Precision is critical when installing herringbone flooring. Verify measurements and check row alignment frequently to ensure the pattern is being laid accurately and symmetrically.
- ✦ WoodTop 15/4mm Herringbone flooring should be installed as direct stick / glue down only. It is not suitable as a floating floor.
- ✦ Expansion gaps must be left around all fixtures and walls of 3 – 5mm, and greater in areas of higher humidity. The installer needs to assess perimeter expansion opportunities to maximise the natural movement of the floor for expansion and contraction, especially around door thresholds, service ducts and heating pipes. Transitions to other floor coverings will require solid brass or alloy trims. If required, a flexible caulking compound to a maximum of 5mm on perimeter or island benches is suitable.
- ✦ The maximum span is 20m in widths or lengths, before requiring an intermediate expansion gap.
- ✦ Herringbone installations may require up to 20% waste factor depending on room layouts for length cutting, pattern alignment and visual selection.
- ✦ Ensure substrate is dry and meets moisture standards. When in doubt, apply the FLOOR+ POLY280 moisture barrier prior to trowelling FLOOR+ MS Timber Adhesive adhesive and laying the floor. The majority of 2-in-1 and 4-in-1 adhesives with a moisture barrier only provide basic resistance (up to 4 – 5% MC), and a separate roll-on barrier is required for warranty provisions.
- ✦ Substrate flatness is critical and should not exceed 3mm variances over a 3m radius in all directions.
- ✦ A minimum 4 – 6mm V notch trowel is recommended to ensure sufficient adhesive application. Ensure full bond contact occurs and full coverage of the substrate (for moisture barrier benefits, if any).
- ✦ DO not use duct tape and/or any other industry's tapes during installation. Low tack masking tape is allowed for usage of a maximum of 48 hours on the flooring.

Finishing The Installation

- ✦ Remove any spacing wedges or boards.
- ✦ The expansion gaps should be covered by skirting boards either by nailing, screwing or glueing to the walls. They should next be fixed to the floorboards.
- ✦ Where the floorboards meet other flooring materials e.g. carpet or tiles, a trim should be used to protect the edge of the floor and transition to another floor.
- ✦ Any visible joins or gaps should be filled with a flexible silicone type of filler to match the colour of the timber.

- ◆ As soon as the installation is completed, conduct a full visual inspection of the floor to ensure there are no glue residues.
- ◆ It is recommended that floor protection is laid over the floor whilst other trades are still on-site and prior to any furniture movement. Ensure the floor is thoroughly cleaned using appropriate products prior to applying the floor protection.
- ◆ Minor scratches or scuffs may be caused on a timber floor and should be attended to prior by using an appropriate filler or wax repair kit.

ⓘ IMPORTANT NOTES - GLUE DOWN

- ◆ The recommended adhesive is FLOOR+ MS Timber Adhesive, which offers a 3-in-1 solution with basic moisture barrier and acoustic benefits.
- ◆ Ensure substrate is dry and meets moisture standards. When in doubt, apply the FLOOR+ POLY280 moisture barrier prior to trowelling FLOOR+ MS Timber Adhesive adhesive and laying the floor.
- ◆ It is critical glue residues are removed immediately after laying each prefinished board.
- ◆ Use professional wipe (or a suitable solvent) recommended by the adhesive manufacturer to remove the glue residues. Always test the solvent prior to application onto the floor.
- ◆ Royal 15/4mm Oak flooring can only be installed over in-slab hydronic underfloor heating, and not in-screed hydronic or electric systems. The slab surface temperature must not exceed 27 degrees at any time.