

INSTALLATION GUIDELINES

IMPORTANT NOTICE

National Select Floors recommends installation by a professional flooring contractor or skilled tradesperson and must follow the Australian Standards for flooring installations. All installations must also be performed in accordance with National Select Floors installation guidelines. If you have any concerns regarding the installation process, please contact your reseller.

Please ensure that the goods received contain the correct product, codes, range size and colour. If the product appears to be doubtful in appearance, DO NOT install and promptly report to your flooring reseller to initialise the review. Once installed, all goods are considered to be checked and accepted by the installer and/or homeowner; National Select Floors assumes no responsibility for any cost or warranty claims relating to the installation of defective or incorrect products.

National Select Floors will not be responsible for issues that may occur due to insufficient subfloor preparation or unsatisfactory installation methods.

KEY INSTALLATION POINTS

- Recommended expansion tolerance (Raft size): Lengthwise 10 m x Width 6 m.
- For indoor use only and is only guaranteed for use as a floor covering.
- Can be installed equal to or above ground level.
- Standard wastage to allow for extra 10% and parquetry allow for min. 20%.
- To be installed around heavy items such kitchen island benchtops, unit carcass, and any heavy fixed to floor carpentry.
- NOT to be used in wet and humidity areas such as bathrooms, laundry, sauna.
- DO NOT install on existing floating floors of any type including carpet, carpet tiles, hybrid flooring, laminate, loose lay and perimeter fastened sheet vinyl.

INSTALLATION METHOD	BOARD THICKNESS	BOARD TYPE
Floating	14 mm & 15 mm	Plank only
Glue-Down	14 to 20 mm	Plank, Herringbone, Chevron
Staple/Nail Down	15 mm & 20 mm	Plank only
Over Timber Battens	20 mm	Plank only

JOB SITE DELIVERY AND STORAGE

- Ensure that all boxes contain the correct product, codes, range, and colour.
- Keep cartons in a dry covered area, away from sunlight or adverse conditions.
- Flooring packs should always be stacked with the bottom of the box facing down; never stack boxes on their sides, vertically and/or leaning against a wall.
- Protect corners of boxes from damage.

ACCLIMATISATION

The intention of acclimatisation is to bring the temperature of the new flooring close to that of the indoor environment. Where possible, it is recommended to acclimatise the flooring in the unopened boxes for a minimum of 48 hours in the area where it is going to be installed.

- DO NOT open the box ends for the intention to acclimatise, it may affect board end-joint tolerances.
- DO NOT open the packs of flooring until the day of installation. You may open to inspect, then re-tape the box again and continue acclimatisation.

THE BEAUTY OF TIMBER

Lamella Engineered Timbers is produced with real wood and is a natural material characterised by variations of colour and grain. Featured characteristics such as gum veins, medullary rays (tiger marks), checking, shakes, sapwood, knots and fillers may appear. These are natural and unique to genuine timber which are an acceptable part of the flooring product.

NOTE: Samples displayed in showrooms, swatches, or media files are indicative only. Colour tones and natural features between these samples and the installed product may vary and not be considered as product failure.

SUBFLOOR PREPARATION

The subfloor refers to the surface over which the flooring will be installed and requires preparation before any flooring installation. The installer must ensure that it is sufficiently flat, dry, sound and secure. The subfloor must be clean and free from dirt and debris prior to installation.

Floor Levelling

The subfloor must be flat, with no more than 3 mm height difference over 3 metres. Before installation, fill low spots with a suitable levelling compound and sand or grind down high spots. Always follow the manufacturer's instructions for leveling products. Use compatible products; preferably from the same brand to ensure warranties stay valid.

Concrete Subfloors

Concrete subfloors must be properly cured and allowed to dry for at least 90 days prior to installation. Test concrete subfloor for moisture content prior to installation, slabs should be less than 4% by impedance meter or below 85% in-slab relative humidity.

- For adhesive fixed floors (trowel glue down installations), moisture protection can be achieved by applying moisture vapour barrier coating onto the concrete. Please follow the preferred choice of manufacturers instructional guidelines.
- For floating floor methods, the foam underlay of choice may have a moisture barrier incorporated (check with manufacturers spec sheet). If not present, a polyethylene (black builders plastic) can be used in addition to and to be installed under the foam underlay. This is the same for floors laid on battens or plywood installed over concrete slab.

Wooden Subfloors

A wooden subfloor may be timber boards or sheet flooring of particleboard or plywood and the typical moisture content usually between 9% and 13%. Wood subfloors must be structurally sound and be screwed or nailed to supporting beams.

- For subfloors on the lower level with soil beneath, this requires greater consideration to prevent rising moisture. A site assessment of the subfloor space is necessary as damp soil and inadequate ventilation may lead to moisture related problems to the installed floor.

Tiled Subfloors

When the subfloors are tiled, we recommend installing using the floating floor method. Check to ensure that the subfloor is sufficiently flat and there is no evidence of moisture. A moisture barrier (black builders plastic) may be used top of the tiled subfloor underneath the foam underlay.

SUBFLOORS WITH UNDERFLOOR HEATING

Lamella Engineered Timbers can be adhesive fixed to slabs with embedded (in-slab) hydronic heating systems. Prior to floor installation, newly installed subfloor heating systems need to be used to dry the concrete before the floor can be installed.

1. Subfloor Preparation For Underfloor Heating

Cleanliness

- Ensure the subfloor is clean, dry, and free of dust, debris, and adhesive residues.

Moisture Content

- *Concrete slabs:* Moisture must be within manufacturer specified limits of below 4% by impedance meter or below 85% in-slab relative humidity.
- Pre-heating the slab may be necessary to reduce moisture levels.
- *Timber subfloors:* Check and confirm moisture content is within the recommended range of 8-10%.
- Ensure that the moisture content of the floorboard and the subfloor is balanced.

Levelness

- The subfloor must be flat and level.
- Use a suitable leveling compound where needed.
- If moisture exceeds 8-10%, install an appropriate overlay (e.g., plywood).

Acoustic Underlay

- If required, use an underlay compatible with both the flooring type and underfloor heating. Refer to manufacturer technical data sheets.

2. Underfloor Heating System

Pre-Heating

- Run the system for at least **2 weeks** prior to installation to reduce residual moisture and condition the subfloor.
- Switch off heating 48 hours prior to installing the floor, the surface of the subfloor the temperature can be a maximum of 27°C.

Temperature Control

- Maintain strict control using thermostats and sensors.
- *Maximum surface temperature must not exceed 27°C*
- *Optimal surface temperature is 23°C.*

Gradual Acclimatisation

- After installation, slowly increase temperature to operating level over 7-10 days.

3. Flooring Installation

Expansion Gaps

- Leave **10–12 mm** gaps around all walls, fixtures, and obstructions to allow for timber movement.

Moisture Barrier

- For the glue down installation method, a moisture barrier coating is to be applied across the entire slab.
- For the floating installation method, install a **200µm plastic sheet** over concrete slabs as a moisture barrier.

Adhesive (Glue down) Installation

- Use a **full trowel adhesive** system and apply **crosslinking PVA glue** in groove joints for direct stick methods.

Floating Installation

- Use a suitable underlay. Crosslinking PVA glue may be required at joints, especially over heating systems.

Post Installation

- A week after the floor is installed the heating system is turned back on with the temperature gradually increasing by no more than 1°C per day, until the subfloor's surface reaches a maximum temperature of 27°C. Use the same steps in reverse when turning off each time the heating system is utilised.
- While hydronic heating is in use, increasing or decreasing the temperature should be by only 1°C per day.

4. Specific Considerations

High Humidity Areas

- Allow additional acclimatisation time and consider larger expansion gaps of 10–12 mm.

Acoustic Compliance

- For apartments, comply with **ATFA acoustic standards** related to underfloor heating and underlay systems.

Professional Assessment

- Always consult a qualified flooring contractor to assess environmental conditions and ensure compatibility with underfloor heating systems.

EXPANSION GAPS, JOINTS & TRIMS

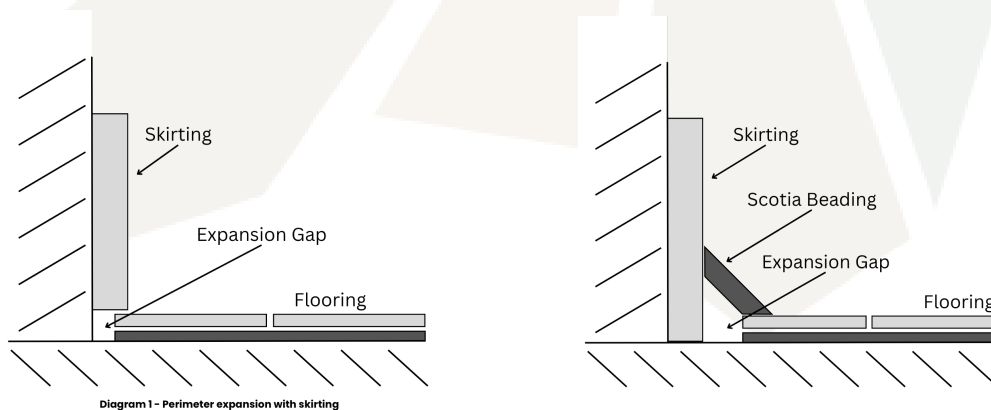
Engineered timber flooring can be affected by factors such as changes in relative humidity and daily temperature fluctuations. As a result, flooring may expand or contract, and allowances must be made for this movement. Perimeter expansion gaps and control joints are essential.

For larger floor areas, expansion trims may be required to reduce movement pressure and allow for expansion and contraction within individual sections. The installer should assess the best options based on the layout and room size.

Recommended expansion tolerances or raft size:

- Lengthwise: 10 metres
- Widthwise: 6 metres

Allow a minimum of 10mm expansion gaps around wall perimeters, vertical fixtures, pipes, pillars, island benches, and where adjoining different floor types.



Aluminium trims can be used as expansion trims and control joints.

Skirting boards and scotia should be fixed only to the wall or cabinets, not directly to the installed floor.

Do not apply sealant at the junction between the floor and any vertical surface (e.g., benches, skirting boards or scotia).

BEFORE INSTALLATION

- Room temperature of the installation should be between 10°C and 30°C and the relative humidity between 45% and 65%.
- Flooring must be installed in a temperature-controlled environment.
- Ideally, remove skirting boards and reinstall after installation. If you plan to keep or are unable to remove skirting, use scotia or aluminium trims to cover expansion gaps.
- Undercut door jambs, allow for 10 mm expansion.
- Install your flooring in ample lighting to observe imperfections such as sheen differences and visible defects or damage prior to and during installation.
- Put aside any defective boards during installation, you may still be able to use them to cut and mix in for random length pieces of minimum of 450 mm.
- For best results and appearance, use a mixture of planks from 3-4 packs of flooring at a time to enable grading/colour blending of the timber variations (knots/grain/colour).

TOOLS REQUIRED

Tape Measure; Utility Knife; Circular Saw or Flooring Cutter; Multi Tool; Rubber Mallet; Tapping Block; Pull Bar; Space bar; Spacers; Ruler; Pencil; Safety Glasses; Broom or Vacuum Cleaner; Hardwood Floor Cleaner.

INSTALLATION FOR FLOATING FLOOR (14 MM & 15 MM PLANK ONLY)

The subfloor must be prepared in accordance with the '**SUBFLOOR PREPARATION**' section above.

- Roll out the foam underlay and lap joint each row with moisture resistant adhesive tape. Follow instructions provided by the underlay manufacturer. Maximum underlay thickness is 10mm.
- Begin with the grooved side of the board facing the wall from where the installation will start. Avoid tapping the groove side to seat boards – only tap the tongue side of the board and use a tapping block.
- Use spacing wedges regularly along the length of the starting wall with an expansion gap of at least 10mm between the first row of boards and the wall.
- Snap a chalk line from the chosen wall to determine how straight the wall is. The starting point is important to ensure that visual effects of non-parallel and bowed walls are minimised, and this also necessitates that boards cut adjacent to walls remain as wide as possible.
- Floors are usually laid lengthwise down hallways and consideration needs to be given to this to see that the floor is installed parallel to hallway walls. The location of the control and expansion joints also needs to be considered. You

should begin the laying of the flooring by starting at a corner of the starting wall.

- Start the next row with a piece left over from the previous row or with a board that is at least 450 mm shorter or longer than the first board in the previous row. The end joints of the adjoining boards should be staggered by at least 450 mm.
- Do not install the boards in a brick like pattern as random end joints are considered to provide a more pleasing appearance.
- Apply cross-linked D3 PVA wood adhesive along all board joints (including end joints). The adhesive is applied in a continuous bead to the top horizontal face in the groove. The bead must be continuous, because if broken, it can lead to squeaks and weakness in the jointing system that can cause board joints to separate. The adhesive also provides some moisture protection to board joints.
- Any excess adhesive is to be immediately wiped off with a damp cloth. If you notice that the boards are not fitting well, open a gap between boards as excess adhesive can hinder the boards from joining properly (vacuum effect).
- Use a rubber mallet and a tapping block to press the first board of the next row into position. Avoid hitting the board directly with a mallet.
- The laying continues row by row until the opposite wall is reached. In most cases, the final row will not be a full board width, so the boards will need to be trimmed along their length and that the 10 mm expansion gap to the wall needs to be maintained (remove the tongues if present).
- When laying the last row, apply the glue in the groove before putting the boards into place with wedges and using a spacing bar. Use protective blocks or flooring offcuts to protect the wall and boards from spacing bar damage. Place the floorboards as low to the wall as possible and use the spacing bar to force the boards into position.
- Once all the boards are fitted and the adhesive is adequately dry remove all wedges.
- Use of colour matched fillers to cover any visible gaps or joints along the board edges or at the ends where two boards meet. Test the filler on a leftover piece of board to ensure compatibility.
- Skirting boards and scotia can then be fixed to the wall or cabinets, it is important that scotia trims are never directly fixed to the installed floor.

INSTALLATION FOR GLUE-DOWN (14 to 20 MM ALL BOARD TYPES)

The subfloor must be prepared in accordance with the '**SUBFLOOR PREPARATION**' section above.

Adhesives are to be either polyurethane or polymer timber flooring adhesives. With adhesive fixed floors, glue ridge height is important and therefore the trowel to be used needs to be that indicated by the adhesive manufacturer for this method of installation, and the adhesive needs to be applied as a full trowel bed in accordance with the adhesive manufacturer instructions.

- Choose a wall where to start the installation, snap a chalk line or use a laser to find out how straight the wall is. The starting point is important to ensure that visual effects of non-parallel and bowed walls are minimised and this also necessitates that boards cut adjacent to walls remain as wide as possible.
- Floors are usually laid lengthwise down hallways and consideration needs to be given to this, to see that the floors are installed parallel to hallway walls. The location of the control and expansion joint(s) also needs to be considered.
- The appropriate positioning of the first row of boards is essential in the glue-down process as it dictates the installation of the whole floor. When laying this first row, you should always use wedges or blocks, creating an expansion gap of at least 10mm along the perimeter of the wall.
- Make sure that this first row of boards is completely aligned and tight at the end joints and note that the tongue side of the board is away from the starting wall.
- From the starting wall adhesive is spread in an area that is approximately 300 mm (or 2-3 boards) wide along the full length of the wall. It is best to measure out the correct distance and use a chalk line to make sure you don't apply the adhesive too far ahead. Install the board at a 45 degree angle.
- Engage the side (edge) tongue and press into the adhesive, sliding lengthwise until the end tongues fully engage. Make use of a hammer and tapping block to tighten the fit and take care not to damage the boards. Continue with this method until all adhesive applied to that area has been covered.
- For subsequent rows, do not use offcut planks less than 450 mm in length to avoid clustering of end joints, unless using for finishing boards. Be careful to always ensure that there is enough adhesive on the subfloor to cover the whole board and make sure that all boards are straight to avoid improper installation alignment at the end of the job.
- Boards lengths should be staggered and with use of different length starting boards to produce a more random laying effect. The preferred method and look is a random mixed appearance.

- Continue with this process until all the floor is laid, noting that the boards along the wall opposite the starting wall will most likely need to be cut, and ensuring that expansion gap allowances are provided to the full perimeter of the floor.
- Avoid hammering the boards on the top surface. Use weights to properly set the boards into the adhesive on the subfloor. Refer to adhesive manufacturer instructions for appropriate allowances for curing times.
- If during laying some adhesive has found its way onto the board surface it is necessary to clean it off as quickly as possible using products provided by or recommended by the adhesive manufacturer. Care is needed so as not to permanently mark the boards and the longer the adhesive is on the board the more difficult it is to remove without trace.
- Equipment, traffic, and furniture items should be kept off the flooring for at least 24 hours to make sure that the adhesive is firmly set.
- Finishing off once the glue is sufficiently dry and the laying is complete, all spacing wedges are to be removed.
- Use of colour matched fillers to cover any visible gaps or joints along the board edges or at the ends where two boards meet. Test the filler on a leftover piece of board to ensure compatibility.
- Skirting boards and scotia can then be fixed to the wall or cabinets, it is important that scotia trims are never directly fixed to the installed floor.

FOR HERRINGBONE & CHEVRON

- Layout Planning: Determine the **centerline** of the room. Use a **chalk line** to mark the starting line — usually a 90° angle to the longest wall or aligned with a prominent room feature. Dry lay a few rows to visualize the pattern and ensure proper alignment.
- Each board will be labeled **Left (L)** or **Right (R)**. These boards will form the "V" shape of the herringbone when interlocked.
- Begin at the **center of the room** and work outwards.
- Lay the **first left and right boards** to form the initial "V" at a perfect 90° angle to your reference line. Use a **square** to double-check alignment.
- Spread adhesive using a notched trowel over small sections at a time.
- Add alternating left and right boards to maintain the herringbone and chevron layout. Tap boards gently into place using a tapping block and rubber mallet. Regularly check alignment and spacing.
- As you approach walls, measure and cut boards to fit using a mitre or jigsaw.
Maintain a **10–15mm expansion gap** around the perimeter of the room using spacers.

INSTALLATION FOR STAPLE/NAIL DOWN (15 MM & 20 MM PLANK ONLY)

The subfloor must be prepared in accordance with the 'SUBFLOOR PREPARATION' section above.

Plywood (minimum 15 mm thick) or particleboard (minimum 19 mm thick) or when fixed to a concrete slab either 12 mm or 15 mm thick plywood. Plywood fixing to the slab over a 200µm plastic moisture vapour barrier is by spike type fixing as used with solid timber floors. Therefore, 4 rows by 5 with 15 mm thick plywood or 4 rows by 7 with 12 mm thick plywood.

Note: *The depth of the nail/staple needs to be fired at the correct height to avoid damage to the board surface.*

- Choose a wall where to start the installation, snap a chalk line or use a laser to find out how straight the wall is. The starting point is important to ensure that visual effects of non-parallel and bowed walls are minimised and this also necessitates that boards cut adjacent to walls remain as wide as possible.
- Floors are usually laid lengthwise down hallways and consideration needs to be given to this, to see that the floors are installed parallel to hallway walls. The location of the control and expansion joint(s) also needs to be considered.
- The appropriate positioning of the first row of boards is therefore important as it dictates the installation of the whole floor. When laying this first row, you should lay it a few rows away from the wall and include a 10 mm expansion allowance at the wall.
- A chalk line in this location and made parallel to the chalk line at the wall, can have a holding board (say 80 x 19 mm) fixed to it to ensure the first row remains straight. The correct shoe for the stapler, based on the thickness of flooring, needs to be used and with a spare board, compressor pressure set and then adjusted to achieve correct fixing. The boards can then be aligned and fixed to minimise any gaps at board edges and adjoining ends. Fixings are to be no closer than 100 mm from board ends and with spacings no greater than 450 mm.
- The rows of boards at the starting wall can be installed at the time of the last rows being installed (after removing the holding board). These outer boards will require face nailing, as secret fixing is not possible close to walls. The final board opposite the starting wall will also need to be cut lengthwise to fit (after taking perimeter expansion allowance into account) and if narrow in width it should be adhesive, as well as face fixed. Specific site considerations may require specific solutions outside the general guidelines above.
- Use of colour matched fillers to cover any visible nail holes, gaps or joints along the board edges or at the ends where two boards meet. Test the filler on a leftover piece of board to ensure compatibility.

- Skirting boards and scotia can then be fixed to the wall or cabinets, it is important that scotia trims are never directly fixed to the installed floor.

INSTALLATION OVER TIMBER BATTENS (20 MM PLANK ONLY)

The subfloor must be prepared in accordance with the '**SUBFLOOR PREPARATION**' section above.

- Battens need to be kiln dried, minimum 60 x 19 mm high density hardwood or 70 x 35 mm medium density hardwood.
- Fixing of the battens to the slab (with a 200µm plastic moisture vapour barrier beneath) is at up to 450 mm spacing with hand driven spike type fixings.
- A combination of polyurethane or polymer timber flooring adhesive along the top of the battens and secret stapling is used to fix the floorboards.
- Choose a wall where to start the installation, snap a chalk line or use a laser to find out how straight the wall is. Note that the starting point is important to ensure that visual effects of non-parallel and bowed walls are minimised and this also necessitates that boards cut adjacent to walls remain as wide as possible.
- Floors are usually laid lengthwise down hallways and consideration needs to be given to this to see that the floor is installed parallel to hallway walls. The location of the control and expansion joints also needs to be considered.
- The appropriate positioning of the first row of boards is therefore important as it dictates the installation of the whole floor. When laying this first row, you should lay it a few rows away from the wall and include a 10mm expansion allowance at the wall to be covered later by the skirting.
- A chalk line in this location and made parallel to the chalk line at the wall, can have a holding board (80 x 19 mm) fixed to it to ensure the first row remains straight. The correct shoe for the stapler, based on the thickness of flooring, needs to be used and with a spare board, compressor pressure set and then adjusted to achieve correct fixing. A 6 to 10 mm wide bead of adhesive is applied to the top surface of the batten prior to secret stapling the boards in place at each batten crossing, and ensuring boards are tight to minimise any gapping at board edges and ends.
- The rows of boards at the starting wall can be installed at the time of the last rows being installed (after removing the holding board). These will require face nailing with two 2.2 mm diameter nails at each joist crossing, as secret fixing is not possible close to walls.
- The final board opposite the starting wall will also need to be cut lengthwise to fit (after taking perimeter expansion allowance into account) and if narrow in width it should be adhesive fixed to the previous board before face fixing.

Specific site considerations may require specific solutions outside the general guidelines above.

- Use colour matched fillers to cover any visible nail holes, gaps or joints along the board edges or at the ends where two boards meet. Test the filler on a leftover piece of board to ensure compatibility.
- Skirting boards and scotia can then be fixed to the wall or cabinets, it is important that scotia trims are never directly fixed to the installed floor.

INITIAL CARE (within 24 hours of installation)

- Thoroughly sweep or vacuum with soft bristles.
- Take care when placing furniture and appliances over your new flooring.
- Avoid dragging heavy objects or furniture across the floor. When moving appliances or furniture, lay a protective item such as cardboard, lift and walk furniture across.
- For heavy items, it is recommended to use smooth, non-staining fabric-faced furniture sliders or to move furniture over sheets of plywood or cardboard to prevent damage.
- Protect your flooring by covering furniture legs with felt protectors.

HOMEOWNER RESPONSIBILITIES

To sustain warranty and ensure quick and easy service in the event of a claim, the following requirements must be met:

- Flooring must be installed according to National Select Floors Installation Guidelines.
- Use appropriate and safe cleaning products.
- Keep at least five (5) planks of the flooring product after installation for repairs and possible testing purposes.
- Retain and be able to provide the original sales receipt or documentation confirming proof of purchase and details of purchase and installation date of the product.

WARRANTY

PLEASE REFER TO WARRANTY ON OUR WEBSITE