

ENGINEERED TIMBER HERRINGBONE INSTALLATION, MAINTENANCE & WARRANTY GUIDE



Embelton installation guide for Engineered Timber Herringbone

IMPORTANT:

Precision is the key when installing Embelton Timber Herringbone Floorboards. Verify measurements and check row alignment frequently to ensure the pattern is laid accurately and evenly.

Each pack contains a set of left-side planks or right-side planks. A left board and a right board are required to form a join.

Embelton Timber Herringbone Flooring must be floated over the subfloor. Please ensure floor preparation of the subfloor is adequate and complete prior to installation taking place. No additional underlay is required.

All installed Floorboards will be considered as accepted by the installer and/or homeowner, therefore it is essential that the floors be thoroughly checked pre-installation, with adequate lighting. If any defects are noticed during installation, please contact customer service.

These basic guidelines are to assist in the laying of Embelton flooring, in addition to the applicable principals of Australian Standards. Please read the entire installation instructions carefully before proceeding with the installation. If you are uncertain, please seek further advice from a suitably qualified flooring installer.

Warranty Provider

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TOOLS REQUIRED



Tape Measure



Chalk Line



Pencil



Stanley Knife



Rubber Mallet

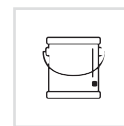


Spacers

OPTIONAL TOOLS



Floor Leveller



Moisture Barrier



Drop Saw

MATCHING ACCESSORIES

Embelton offers a wide variety of floor trims to suit most installations, for junctions with other finishes.

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BEFORE YOU START

- This instruction is a GUIDE only
- Always follow the manufacturer's instructions for any compound or material used in the installation process

Check for signs of moisture

Subfloor - Concrete Slabs

- Concrete slabs are porous and allow moisture to pass through as a vapour. Adequate protection must be installed over the slab to prevent moisture ingress into the timber, bamboo or laminate floor.
- Poor drainage and subfloor ventilation often contribute to high moisture content in slabs.
- Chalky slabs - If the slab easily marks when a coin is run over the surface, it may not be properly cured. Moisture vapour as a result can easily pass through the slab and into the floor.
- Wet slabs - Concrete slabs in new build homes must be allowed enough time to cure properly.
- Moisture content must be below 5% before any installation is commenced.
- Moisture readings should be taken prior to installation, with records kept.

External site inspection

- Ventilation - Check there is sufficient airflow underneath the structure to prevent moisture build up below the substrate.
- External drainage - Poor drainage will allow moisture to build up under the property. Check for garden beds against the walls of the foundation. Ensure foundations are thoroughly checked prior to installation.
- External Plumbing - Check for leaks.
- Blocked Downpipes - Causes moisture ingress into walls, which can enter the floor.

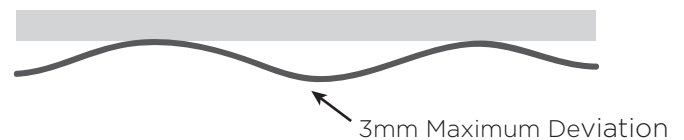
Internal site inspection

- Leaky Equipment - Check for watermarks around doorways, ceilings and walls from fridges, washing machines, dishwashers, heating and cooling appliances.
- Leaky Fixtures and Seals - Check for poorly sealed sinks, shower basins and other plumbing fixtures.
- High Humidity Heating and Cooling Systems - Evaporative coolers are not recommended with engineered timber, bamboo or laminate floors as if not used correctly, they can cause extreme internal humidity levels. It is essential in these high risk installations, that maximum raft size and expansion allowances are adhered to.

Floor levels

- Relevant Industry Standards - require that subfloors must have no more than 3mm deviation over 1m.
- Squeaky Floors - Poorly levelled subfloors can cause squeaking in engineered timber and laminate floors. Therefore all efforts must be made to ensure your subfloor is within industry standards in order to satisfy warranty conditions.
- Levelling Checks - Using a straight edge tool, levelling checks must be performed, with results recorded in case of future warranty claims.
- Floor Prep - Where levelling is required, detailed logs should be recorded, including post levelling. Recommended options are outlined in the Installation section.

1 metre rule/straight



Underfloor heating

- Embelton engineered timber and laminate floors are not warranted over underfloorheating systems.

Optimum laying conditions

- Normal living conditions under which the floor will be exposed, is optimal for installation.
- Room temperature should be between 15-30 degrees.
- Humidity levels should be within 30-70%.
- Floor should never be exposed to temperatures greater than 42 degrees.

Appropriate window furnishings

- Harsh direct sunlight will dry out and contract engineered timber and laminate floors, as well as cause discolouration.
- Check all external windows and doors have appropriate furnishings such as blinds, shutters, curtains and window tinting to prevent harsh direct sunlight affecting the floor.

Heat Sources

- Excessive dry heat will cause engineered timber and laminate floors to contract, which can cause gapping between boards.
- Use of internal heating systems such as floor ducted heating vents and fireplaces, must be regulated at all times to prevent the floor from drying out.

Maintaining Relative Humidity

- Excessive dry heat will cause engineered timber and laminate floors to contract. It is important that the floor's environment is regulated to normal living conditions once the installation is complete.
- Exposure to prolonged dry periods will cause the timber to contract, which can cause minor surface checking. Can often occur in unoccupied new build developments, so it is important that the floor's environment is regulated to normal living conditions once the installation is complete.
- Where appropriate fill vases and sinks to allow the floor to draw some moisture from its environment.

Acclimatisation & Storage

- Up to one week's acclimatisation is essential in areas that are particularly humid, cold, wet, hot or dry. Boards installed in a humid environment will naturally grow, hence the requirement for acclimatisation in areas such as QLD.
- If the product is to be stored onsite, the cartons should only be opened when the installation is ready to commence. They should not be left opened for several hours/days.
- Once the product is laid, the internal environment must be regulated to normal living conditions.

Defective Boards

All installed boards will be considered as accepted by the installer and/or homeowner, therefore it is essential that the boards be thoroughly checked pre-installation, with adequate lighting.

Defective boards must not be laid and it is the responsibility of the installer to remove prior to installation.

Boards should be checked for the following prior to installation:

- Board Defects - Boards from multiple packs must be checked for defects such as chips, delamination and dents.
- Excessive Colour Variation - Boards from multiple packs must be checked for excessive colour variation. While timber is a natural material, and colour will vary between boards, blending boards from multiple packs during installation will balance out normal colour variation.
- Excessive Feature (engineered timber only) - In packs of timber, there will always be boards with heavy features. Boards with excessive features should not be laid, or laid in low visibility areas, such as cupboards.
- Moisture Content - Randomly selected boards should be checked with an appropriate moisture meter prior to installation. Moisture content should read between 8-10%. Boards that have a moisture reading outside of these limits should not be installed, and Embelton should be contacted for advice.
- Bow and Spring - Boards must be checked for bow and spring. Standards for this length of board allow 13mm of bow and 5mm of spring.
- Locking System. Check that it is clear and free of debris.

Direct Stick Vs. Floating

Direct Stick Method - Engineered Timber ONLY.

- Feels, and sounds better than a floated application.
- Allows for bigger raft sizes, as the floor won't contract and expand like a floating floor
- All direct stick applications must include a suitable moisture barrier.

Floating Over Underlay

- For floated applications, the use of the Hyrdro-Stop or an equivalent underlay with a 200 micron black plastic is mandatory under all Embelton engineered timber and laminate flooring.
- Where the underlay does not have a minimum 200 micron thick plastic layer, builders black plastic should be laid underneath.
- For Hydro-Stop or equivalent underlays that have a moisture proof self-adhesive backing, ensure that an adequate seal between the joins is achieved (It is recommended to use a weighted roller or press the underlay joins firmly together to achieve an effective seal). Any gaps at the joins will compromise the moisture barrier properties of the underlay.
- Underlays that do not have a self-adhesive at the joins must be overlapped by a minimum of 200mm and be sealed with a moisture proof tape.
- All underlays are to run up walls and fixtures to thickness of the flooring.

Raft Sizes & Expansion Gaps

- Engineered timber and laminate flooring are natural materials and will expand and contract according to the environmental conditions.
- In floating applications, expansion gaps allow the floor to contract and expand as a 'raft'.
- The bigger the raft size, the greater the floor can contract and expand, requiring larger expansion gaps.
- If the raft doesn't have enough expansion, the boards will move and grow against each other resulting in issues such as cupping and peaking.
- In areas of high humidity (e.g QLD), or cold wet areas, engineered timber and laminate floors will absorb moisture and expand more than normal. If floating, minimum 15mm expansion gaps must be installed, and maximum raft size allowances must be adhered to.
- Timber and laminate flooring will always contract and expand more in the width than the length, therefore extra allowances should be made for expansion across the width of the floor.

Maximum Raft Size Allowance

Climate	Engineered Timber
Dry Areas (South of Brisbane)	Floating: L: 10m x W: 8m
	Direct Stick: L: 16m x W: 12m
Humid Areas (North of Brisbane)	Floating: L: 8m x W: 8m
	Direct Stick: L: 10m x W: 8m

Expansion Gap Requirements

Floating Applications

- A minimum of 10-15mm expansion gap must be left around the perimeter and internal objects such as kitchen benches.
- As a general rule, for larger raft sizes (up to 10 x 8m), or for more humid environments, please allow 15mm expansion.
- Where required, undercut the gyprock for greater expansion allowances, particularly in high humidity environments.
- Doorways and adjoining rooms are ideal places to install internal expansion trims to separate the floor into smaller rafts.
- Door frames and architraves need to be undercut to allow movement of the raft.
- Scotia, beading and skirts will adequately cover the expansion gaps.

Direct Stick Applications

- As the floor is direct stuck to the substrate, reducing the ability of the floor to contract and expand, a smaller allowance of 8-10mm is allowed.
- For longer runs over 10m in Length or Width, allow 10mm expansion gaps.

Subfloor Preparation

Ensure that the subfloor is clean, flat, dry, smooth and level before installation.

Floor Levelling - Concrete Slabs

- Subfloor must be within Australian Standards which allow for height differences of +/-3mm over 1m.
- Grind high spots and fill low spots with a levelling compound to ensure the subfloor is level.
- Embelton recommends Bostik UL-200 levelling compound.
- Carpet staples or glue residue must be removed and subfloor must be clean to ensure proper installation.

Floor Levelling -Yellowtongue & Chipboard

- Correct any changes in height difference by planing, sanding humps (high spots) or by filling depressions (low spots) with timber filler.

Floor Levelling - Existing Floorboards

- When direct sticking, previously coated timber surfaces should be sanded and be free of dust, oil or contaminants to ensure adequate adhesion between old and new flooring can be achieved.
- Height differences of more than 3mm +/- over 3 meters must be levelled.
- Boards will be more stable if laid at a 90 degree angle to the existing floorboards.

Moisture Barriers & Underlays

- Bostik Combined Moisture Barrier and Adhesive. (Direct Stick for engineered timber only) Bostik 3in1 is a combined moisture barrier and adhesive, also offering excellent acoustic performance. Easy to use and efficient option for glue down.
- Paint on Moisture barriers. Embelton recommends Bostik Moisture Seal. Correctly applied, this is one of the most effective moisture barriers. Suitable for direct stick and floating installation methods.
- Embelton Hydro-Stop underlay. High quality 2mm closed cell acoustic foam underlay, with an Inbuilt 200 micron plastic layer which acts as an effective moisture barrier.
- Builders Plastic. Thick black builders plastic with a minimum 200 micron thickness is suitable for installation under standard underlays to act as an effective moisture barrier.

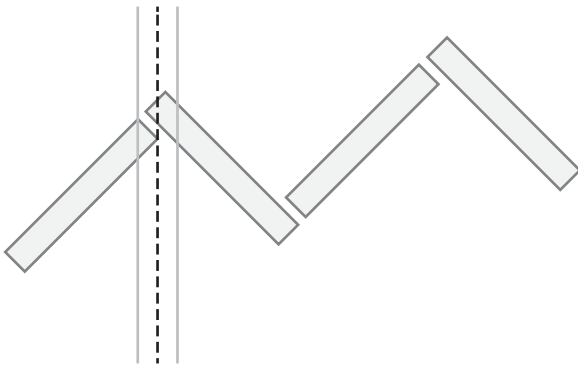
Best Practise Tips

- Pre-select boards that blend best with matching scotia, skirts and trims.
- Stagger boards to ensure a more favourable overall appearance of the floor. Boards in adjacent rows should be staggered at mid point when the boards are equal length. When installing boards of random length, ensure that the staggered length is at least 20cm. End boards must be greater than 30cm in length to prevent gapping.
- Check door and door frame clearances to ensure that doors will move freely without contacting the floor surface.
- Although floating floors can be installed in any direction, as a rule, they are usually installed perpendicular to a window. Installing the floor parallel to the longest wall tends to make a room appear larger.
- You will get better results by laying two or three rows in advance to get an eye pleasing distribution of the plank.

NOTE: If the wall is uneven, the floorboards must be adapted to its contours. Mark the floorboards with the contour of the wall. Do not forget to leave a 8-10mm space to the wall.

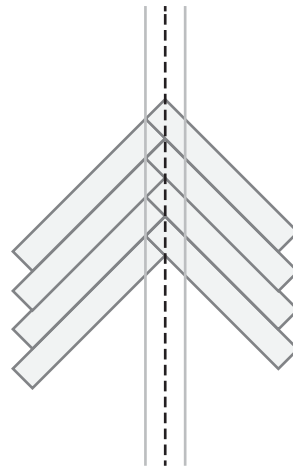
When beginning your Herringbone pattern, your first two planks, a left and a right plank need to be placed at the apex of your designated living/main area of installation. From there, you will start placing your additional left and right planks parallel going forwards. Whilst doing so, place your additional packs to weigh down the first planks installed to maintain the shape and avoid movement.

1. Assess the layout of the first room where laying will commence. To determine a starting point, find the centre of the room, then use a chalk line or straightedge to strike/mark a line.
2. Set the first left board to the left-hand side of your chalk line, make sure the upper right edge of the board is aligned with the centre line.

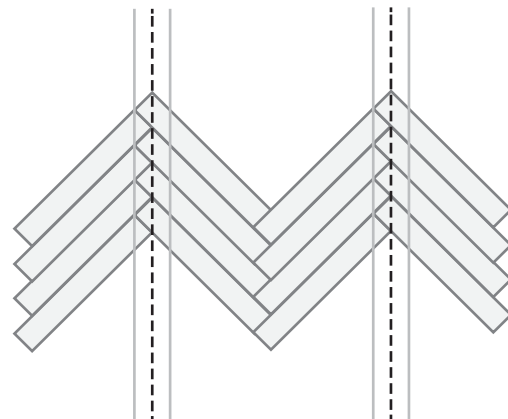


3. Set the right board to the right-hand side of the starter board and engage the locking system, make sure the upper left side of the right board is engaged with the left board.
4. Begin installing the second left-side board and engage the locking system. Ensure the upper right corner of the board is aligned with the centre line.

5. Continue installing the second right-side board, making sure the upper left side is engaged with the second left-side board.



6. Install the first 3 boards and temporarily secure the boards in place by weighing the section down with additional flooring packs. If necessary, you can strap the boards by using a low tack masking tape, ie. Painter tape.
7. Start the next row, place the new left-side board against the previous row and make sure it is engaged with the previous right-side board. Continue the second row with the right-side board engaged with the upper left-side board.
8. Snap a new parallel chalk line through the upper end, this will be the centre line of your new row.



9. Continue working forward until the first two rows of flooring are complete to the far wall. Ensure to weigh down the boards with additional flooring packs as you go.
10. Cut the final row to fit, allowing an 8-10mm expansion space to the wall.
11. Begin installing a new row by repeating the above instructions until the installation is completed. Measure and cut the final boards to fit allowing a 8-10mm expansion space to the wall.
12. Check measurements and row alignment frequently to ensure the rows are staying true and square. expansion space to the wall.
13. When installation is complete, remove all the masking tape from the floor. (Do not leave the masking tape on the floor for more than 24 hours)
14. Once installation is complete, any spacing wedges used can be removed. The expansion gap around the perimeter of the floor can be covered by re-fitting skirting boards or installing scotia either by nailing, screwing or gluing directly to the perimeter walls. Never directly fix trims to the floor.

Your Embelton Floating Floor is designed with low maintenance in mind. Follow these simple steps to achieve many years of enjoyment from your floor.

Preventative Care Tips

Preventative measures are very important in maintaining hybrid floors.

Clean the floor regularly using dry cleaning methods. Suitable methods include using a microfibre spray & mop system, soft broom or vacuum with a soft brush attachment only. Regular removal of surface dirt and grit will prevent the surface from being scratched. To remove water soluble dirt, clean using a PH neutral Wood Floor Cleaner. First dry clean the floor to remove surface dirt, etc. Spray the surface sparingly with Wood Floor Cleaner and clean using a microfibre cleaning pad. Rinse cleaning pads regularly in clean water during use and replace when dirty. Most cleaning pads can be washed in a washing machine after use, check the manufacturers recommendations.

- In areas of excessive traffic and wear, please make use of runners or area rugs.
- Use felt protectors under heavy pieces of furniture and chairs.
- Use protective mats at all exterior entrances. Do not use rubber-based furniture or mats as the rubber may leach into the floor.
- Spiked heels or shoes in need of repair can severely damage your floor.
- Keep animal nails trimmed to prevent excess scratching.
- Protect your floor by using a dolly for moving furniture or appliances. Try not to slide or roll across the floor.
- Maintain relative humidity levels between 30% and 70% and temperature between 15-30°C
- All doorways and adjoining rooms should have expansion joints.
- Sweep or vacuum as often as necessary to remove any loose dirt or grit before it can scratch the floor.
- Use a slightly damp mop only – avoid excessive amounts of water. Steam mops must not be used.
- Oil soaps, wax, liquid or other household products may affect your coating and should be avoided.
- Avoid prolonged exposure to direct sunlight through the use of blinds or curtains.

Embelton recommends Bona Timber Floor Cleaning Products.

Repairing Scratches

Embelton recommends the following repair accessories:

- For darker timbers, we recommend Gilly Stephenson's Scratch Cover for dark wood floors
- For lighter timbers, we recommend Gilly Stephenson's Orange Oil for pale wood floors
- Alternatively, consult Embelton for a colour matched crayon-type filler stick, designed for use on UV-finished wood floors
- Please contact Embelton Flooring for advice prior to any major rectification.

Maintenance

If areas of the floor begin to look dull in comparison to the remainder, the use of a Wood Floor Refresher should be considered. Wood Floor Refresher is designed to restore an even sheen to the surface whilst giving added protection against future traffic. Typically, floors maintained using a Wood Refresher can be refurbished in the future without having to be sanded back to bare timber.

Please note: Staircases have a specific requirement for slip resistance and a Refresher should not be used on stair treads.

Please consult the manufacturers datasheets and instructions before applying these products. The Manufacturer's instructions may be found on the product labelling or available on their website.

To Refresh the floor, thoroughly clean the surface using a Wood Floor Cleaner. Allow the surface to dry. It is very important that the floor is as clean as possible, otherwise any deposits of dirt, etc. may become trapped beneath the layer of refresher and will remain visible.

Apply an even application of refresher, using an applicator pad. After the specified duration, the floor may be trafficked and put back into normal use. Reinstating rugs, furniture etc. should be avoided for 24 hours. It is important that the whole floor is treated rather than small areas. Trying to coat small areas will result in visible differences in the sheen level.

Does my home have suitable ventilation and drainage?

Airflow under and/or around a floor is essential. Normally brick homes have suitable ventilation slots around the brickwork, but it's important to ensure these have not been filled in over the years or become overgrown by garden beds. Drainage is also essential to ensure water is not trapped around or under your home. Failure to ensure this can increase the moisture content in your floor and potentially cause issues.

Why does my floor look slightly different to what I imagined?

Photos in magazines or the internet will not give you a realistic representation of full species colour or feature. Even a sample flooring board provides just a representation of the colour and features in that species. It might be noted that many species and types of flooring have a great spread of natural variance and are affected by seasonal and climatic changes. Within a single species the colours and colour variation can be quite pronounced and can differ markedly from one floor to another.

How will my floor wear?

Hardness indicates a species resistance to indentation. Damage to floors may occur due to continual movement of furniture, heavy foot traffic and in particular "stiletto-heel" type pressure. Embelton flooring ensures improved resistance to indentation and abrasion. Minor surface scratching in the coating can be repaired with Gilly Stephenson oil by the home owner on a regular basis.

How do I care for my floor?

A simple brush or a light vacuum keeps floors looking great. If household pets or children have dragged mud through the house a micro fibre mop and a light mist of water removes the grime with ease. A minimum amount of water is the key. Many household chemicals and cleaners will damage floors and must not be used. There are many aspects that affect how often the floor requires cleaning and these include the degree of grit present (particularly from children and pets), type of exterior and interior matting used, the level of foot traffic, type of footwear and general conditions of the area outside the house, such as abundant gravel or sand. Spills should be mopped up when they occur and any leaks attended to immediately. Steam mops should never be used on your floor.

Does the climate and environment of my home affect my floor?

It is important to have an understanding of the relationship between your flooring, humidity in the surrounding air and the dimensional changes that occur as a result of changes in humidity. Steam mops should never be used on your floor.

During weather conditions of consistently high humidity, your flooring will absorb moisture from the surrounding air causing it to swell or increase in size. This can cause squeaking or creaking due to the tightness of the boards.

Conversely, during drier times when humidity is low, your flooring will shrink, reducing in size. Your flooring, if not placed in a permanently controlled environment, will always move in response to changing environmental conditions.

Ultimately consumers should understand that as a natural product, your flooring will continue to respond to its environment throughout its life.

What impact will large expansive windows or skylights that face the sun for extended periods have on my floor?

If a floor is constantly in direct sunlight this may cause unwanted fading, shrinkage and even some damage due to surface drying. All efforts should be made to protect floors from harsh direct sunlight using window coverings, window tinting or other shade methods such as pergolas or verandahs.

Do heating systems, refrigerative air conditioning and evaporative coolers alter the conditions of my flooring?

Any of these products can have an adverse effect on your floor if they are used for extended periods or incorrectly. You must advise the flooring retailer of your normal usage habits when choosing your floor and ahead of installation as these will dictate the product's suitability and installation method.

The home should be kept to a regulated temperature and relative humidity. This will also ensure your floor is in the right controlled environment.

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