

ENGINEERED HERRINGBONE FLOORING INSTALLATION INSTRUCTIONS

Installer responsibility: READ CAREFULLY PRIOR TO INSTALLATION

Beautiful floors are a product of nature and therefore, not perfect. Hardwood floors are manufactured in accordance with accepted industry standards which permit a defect tolerance not to exceed 5%. The defects may be of a manufacturing or natural type. Prior to the installation of any hardwood flooring product, the installer must determine that the job-site environment and the subfloor surfaces involved, meet or exceed all requirements as stipulated in these installation instructions.

We do not accept any responsibility for job failure resulting from or associated with subfloor surface or job-site environment deficiencies. The installer/owner has final inspection responsibility as to grade, manufacture and factory finish. He must use reasonable selectivity and hold out or cut off pieces with glaring defects, whatever the cause. Use of stain, filler or putty stick for defect correction during installation should be accepted as normal procedure. When hardwood flooring is ordered, on average 15% must be added to the actual square metres needed as allowance for cutting waste and/or mis-manufacture. Should an individual piece be doubtful as to grade, manufacture or factory finish, the installer should not use the piece.

DO NOT INSTALL ANY QUESTIONABLE OR DEFECTIVE PRODUCT.

NOTE: IT IS RECOMMENDED THAT YOU EMPLOY A PROFESSIONAL FLOORING CONTRACTOR WHO OWNS A MOISTURE METER TO LAY YOUR FLOORING. IT IS THE INSTALLER'S RESPONSIBILITY TO CHECK THE MOISTURE OF THE CONCRETE AND OTHER CONDITIONS IN THE HOUSE BEFORE LAYING THE FLOOR

STAGE 1: BEFORE YOU START – JOB SITE INSPECTION

Acclimatisation and Storage

The floor should be stored horizontally in the room that is being fitted for at least 7 days before installation – the longer the better. Failure to acclimatize may cause excessive expansion and contraction. Do not open the packs prior to installation.

The room temperature should be 18 - 22°C and the relative humidity between 40 – 60% for a minimum of 14 days prior to the installation of the flooring as well as during and after the fitting. The fitter should carry out these tests. Do not install timber flooring in rooms where the heating system has not been commissioned. Never bring flooring into a house which is not to the above conditions. It is vital that the packs are stacked correctly and horizontally. Place at least 3 laths between the ground and first row. The best way to stack the packs is to place laths between each row.

Sub-floor Evenness and Cleanliness

It is imperative to ensure that your cement or wood sub-floor is level (to within 3mm over a 1 metre span) and that it is clean, dry and secure. Failure to do this may result in edge damage to the boards or noise related issues e.g. squeaking. It is the fitter's responsibility to ensure that the floor is level and clean. Any remaining residues or dirt should be removed.

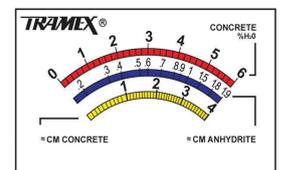
IMPORTANT: Sub-floor Moisture

Cement Screeds (See Scale):

The moisture of the concrete floor must not be over 3% (2.0% C.M.) based on Tramex Concrete Encounter Red Scale in diagram - this should be tested with an appropriate moisture meter e.g. Tramex Concrete Encounter. If the cement sub-floor moisture level is too high, either wait until it is dry or use a Liquid PU Primer such as Vermeister Primer SF which will seal cement floors up to 6% moisture on the Tramex Concrete Encounter Red Scale (4.0% C.M.).

Pump / Anhydrite Screeds:

For pump/liquid (calcium or anhydrite) screeds, the moisture level should be 0.3% CM for underfloor heating (Use Tramex Concrete Encounter blue scale). Our Vermeister Primer SF can be used for anhydrite liquid screed to max 0.5% CM (One coat only).



Timber Subfloor:

Suitable timber subfloors include flooring grade plywood or OSB Grade 3 (Kiln Dried approx. 12%). Construction Plywood is not a suitable sub-floor due to its high moisture content. A moisture check should be done on all timber board subfloors prior to installation and moisture content should be between 10-12%.

Inspect Flooring

Prior to installation, the fitter should inspect each board in daylight for any visible faults or damage and also check the colour, structure and finish. The installer/owner has final inspection responsibility as to grade, manufacture and factory finish. They must use reasonable selectivity and hold out or cut off pieces with glaring defects, whatever the cause. Once a board is fitted, it is deemed to be acceptable. It is the responsibility of the fitter and the end user to ensure that the grading of the floor is correct. Always select boards from different bundles to ensure an even appearance.

NO CLAIMS ARE ACCEPTED ONCE THE FLOORING BOARDS HAVE BEEN INSTALLED.

STAGE 2: INSTALLATION - ENGINEERED HERRINGBONE

METHODS OF INSTALLATION

- 1: Glue Down Installation
- 2: Installation over Under-floor Heating
- 3: Installation details

1: GLUE DOWN INSTALLATION

Engineered herringbone flooring must be glued down fully to subfloor - no exceptions. Suitable subfloors for glue down installation include cement screeds, ceramic tile, flooring grade plywood or OSB Grade 3 (Kiln Dried approx. 12%). Construction Plywood is not a suitable subfloor due to its high moisture content. All cement screeds must be properly cured, clean, dry and free of contaminants such as sealers and old adhesive residue. All subfloors must be structurally flat within industry standards of 3mm variance across 1mt. All subfloor surfaces must have a sound but still 'rough' or porous surface in order to ensure a good bond with the adhesive. Old adhesive residues should be removed. A slick or sealed surface should be pre-sanded.

Glue down installation requires that a quality low water solvent free based adhesive be used, using a trowel and spread rate as specified by the adhesive manufacturer. The recommended adhesive for most installations is Griptight 50 PRO PLUS Adhesive or equivalent. See adhesive manufacturer's installation instructions for specific rules and guidelines regarding installation procedures and acceptable subfloors. Any questions regarding the acceptability of a concrete slab or any other type of subfloor or subfloor coating for application of an adhesive, is the sole responsibility of the adhesive manufacturer and the flooring contractor. Remove wet adhesive immediately as it can be very difficult to remove once cured. The recommended trowel is a 5.5mm V Notch trowel to ensure maximum coverage and a good bond between the subfloor and wood flooring. Larger notch trowels will result in less m2 coverage per kg.

Expansion: Always remember to leave an expansion gap of 15mm at walls, pillars, doorways or fixed objects etc and around the entire perimeter. For pipes: Drill a hole with a diameter about 15mm larger than that of the pipe. In the case of solid flooring or large areas of engineered flooring, it may be necessary to leave additional expansion through the floor as well as around the perimeter. It is the fitter's responsibility to calculate what additional expansion may be required.

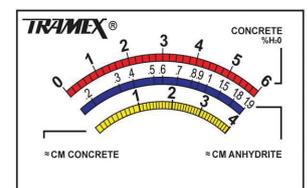
2: UNDERFLOOR HEATING:

Our engineered floors are suitable for use over underfloor heating. Please follow below guidelines and information. It is very important that the moisture content of the subfloor which your floor will be laid onto is at the correct moisture level. To avoid cracks in new subfloors, you need a natural drying time of approx. one week per cm thickness of the screed. You can turn on the heat after the above has been achieved. Raise the water temperature by 5 degrees per day till you reach maximum capacity and leave the heating on for 14 days. This is important as a relatively small moisture percentage can cause movement issues with your floor.

After these 14 days, switch the heating off for at least 1 week. If necessary, the floor can be levelled and primed at this stage. A floor should be levelled with a high quality latex levelling compound if outside tolerances of 3mm over 1 metre. A moisture check must also be done on the screed prior to any installation. The surface temperature below the floor must never exceed 27 degrees and the maximum difference of room temperature per 24h is 3 degrees Celsius.

- Liquid PU primer – Vermeister Primer SF (see below guidelines for use)
- Griptight 50 PRO PLUS Flexible Adhesive Glue

Note: For a glue-down installation, please turn heat off / to minimum 2 days before installation. You can turn on the heating system again two days after installation - again with maximum increments of 3°C room temperature per day. We recommend that a high quality flexible glue (suitable for U/F Heating) such as Griptight 50 PRO PLUS Adhesive is used for glue down installations.



GUIDELINES:

- Moisture of cement must not be higher than 3% (2.0% C.M.) based on Tramex Concrete Encounter Red Scale in diagram - this should be tested with an appropriate moisture meter e.g. Tramex Concrete Encounter.
- If the cement sub-floor moisture level is too high, either wait until it is dry or use a Liquid PU Primer such as Vermeister Primer SF, which will seal cement floors up to 6% moisture on the Tramex Concrete Encounter Red Scale (4.0% C.M.).
- For anhydrite or calcium screeds (pump screeds), the moisture level must be 0.3% CM or below based on Tramex Concrete Encounter Blue Scale). Our Vermeister SF Primer can be used for anhydrite liquid screed to max 0.5% CM (One coat only).
- The floor needs to be level – (Max 3mm deviation over 1mt)
- Bring Flooring into house in normal living conditions i.e. Temp >18°, Humidity 40-60%
- Surface temperature of screed not to exceed 27° degrees celsius
- Use a quality flexible glue such as Griptight 50 PRO PLUS that is suitable for under-floor heating (If glue down)

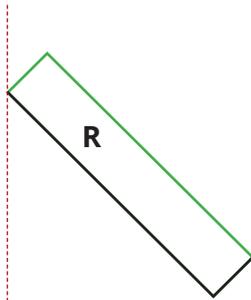
IMPORTANT: RETAIN SEVERAL LEFTOVER BOARDS FOR POSSIBLE FUTURE REPAIRS

3. Installation of Engineered Herringbone

3.1. General information

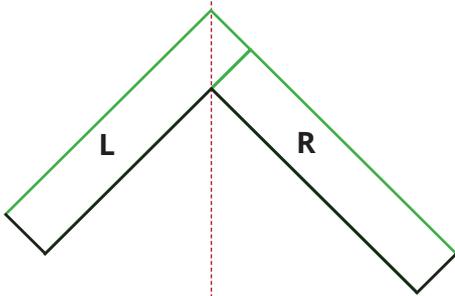
For the installation of Engineered Herringbone, please apply all general guidelines of Whiteriver flooring. Boards are supplied in lefts and rights to ensure an accurate installation. All boards are exactly machined with diamond tipped tools, to ensure you the most exact fitting possible.

3.2. Installing Engineered Herringbone L&R



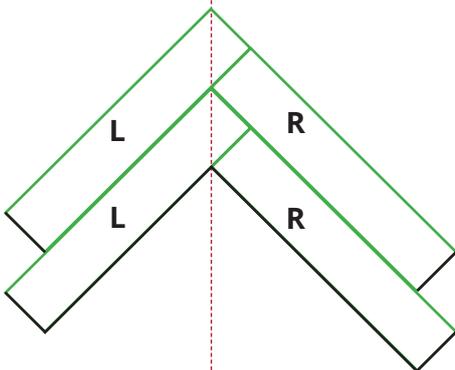
Before you start with installation make sure you have marked the floor with a straight line in the middle of the room/area that is clearly marked on the floor. This must be under an exact angle of 90 degrees on line with the wall, so installation will be diagonal throughout the room. Start with the first board, place the grooved side facing towards you.

— Tongue



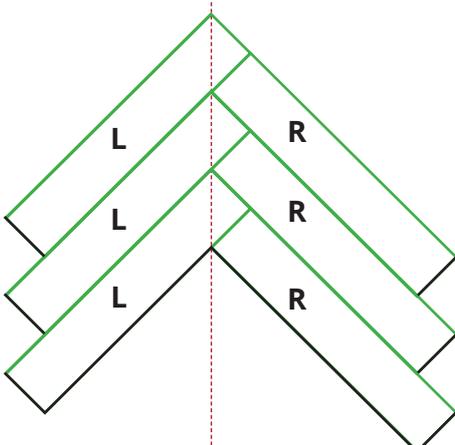
When you put the second board down, place this one with the grooved side facing towards you.

— Tongue



Place the second row the same as the first row and make sure the boards are placed together tightly. Now an exact corner of 90 degrees connects the boards together. This is the basis where you start from. So make sure that these boards are securely tightened and cannot move any further.

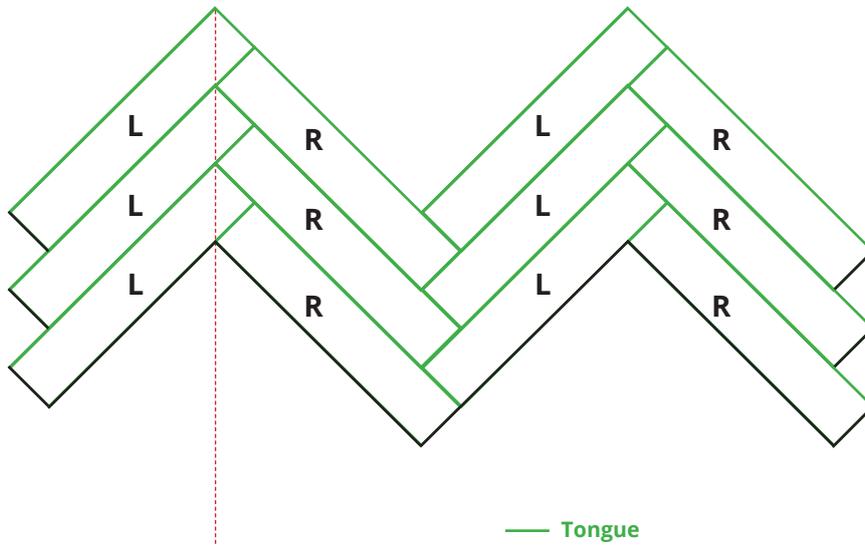
— Tongue



Repeat this until you have reached the end of the room/area. You will now find a complete line of herringbone flooring.

Note: Proper alignment is critical, misaligned boards can cause side and end gaps.

— Tongue



After the first line has been completed, you can start with installation of the lines next to the first line, creating the "W" shape from the herringbone.

Allow adhesive to cure for at least 24 hours before permitting foot traffic or moving furniture onto floors. If the floor is being sanded afterwards, the adhesive must be allowed to cure for a minimum of 48 hours prior to sanding.

STAGE 3: CARE OF YOUR FLOOR

Room Conditions

Timber likes pleasant room conditions similar to humans; a room temperature of 20°C and humidity of about 50%. A humidity controller may be required. All rooms, which have timber flooring, should ideally be maintained at the above.



Protecting your floor

To preserve quality and beauty of your floor the following guidelines should be followed.

- Use protective pads and castor cups under chairs and furniture legs. Use good quality polycarbonate mats under wheeled office chairs.
- We recommend that good quality entrance barrier mats are used at all external entrances to the hardwood flooring to collect grit and moisture from the underside of footwear.
- Never use a rubber mat, with Styrofoam or plastic backing.
- For moving heavy furniture place a piece of carpet face down between the legs and the flooring and pull on the carpet to move the furniture.
- We would advise that during installation / other building works that the timber floor is covered with a heavy duty breathable floor protection roll / sheets to protect the finish.
- Do not apply adhesive / decorators tape directly to the floor finish.

In the event of a proven manufacturing defect, the companies or sellers total liability shall under no circumstances exceed the value of the defective product. The company or seller shall not in any way be responsible for any additional consequential costs or losses. If you are unclear regarding any of the above instructions, contact your local supplier.