Terra Mater

Installation and Maintenance Instructions

Oak Engineered Timber and Herringbone Flooring

Customers or installers responsibility prior to the installation of flooring products.

It is highly recommended that all our flooring is installed by a qualified and experienced contractor.

It is the installers/customers responsibility to carry out an inspection of the delivered flooring product **prior** to installation to ensure the colour, grade, pattern irregularities, structural quality, gloss and finish are acceptable. **It must also be confirmed that the correct product, as per viewed samples, has been delivered to site. If the product is deemed not acceptable, do NOT install it and contact your supplier immediately. If the product is installed it will be considered to be acceptable to the customer and the supplier will take no further responsibility.**

A waste factor of approximately 5 to 10% should be ordered to complete any sorting, cutting or visual selection during installation.

Herringbone Flooring should be ordered with a 20% waste factor.

Flooring should never be stored outdoors, on a cement floor, in a garage or in any damp conditions. Care should be taken to store the packs flat; packs should never be lent against a wall.

Engineered flooring does not need to be climatized on site. The product should be installed from the carton. Its moisture content should be checked by the installer before installation with a moisture meter to be certain that the flooring has not dramatically changed moisture content since it has left the supplier warehouse. Approximately 8 to 10%. MC .

All flooring contractors should possess moisture meters for the timber flooring and concrete and timber sub-floors.

Levelling and subfloor requirements

Subfloors are to be made flat through grinding and/or levelling to the following ATFA and Australian Standards AS 1884:2012.

Floating Engineered Floors: Not to exceed 3mm under a 1 meter straight edge.

Direct stick engineered Floors: Not to exceed 3mm under a 3 meter straight edge.

Concrete sub floors must be protected by a paint on moisture barrier or 200 micron black plastic if above 5% MC or 75%RH. Timber subfloors must also be checked for high moisture prior to installation. High readings can be caused by poor drainage or leaks and will affect the finished flooring if not rectified.

When installing Engineered Timber as a floating system the span of both the width and length of the floor should

not exceed 10 x 10 meters. Expansion joints should be fitted to compartmentalise a larger floor area so it can move correctly as a raft. This can be done in doorways or natural transitions from one area to another. At doorways or transitions the door jambs or frames needs to be undercut well and all material removed for the timber floor to slide under and move freely. A gap of 1mm is recommended.

The installer must use reasonable selectivity and remove any faulty boards that should not be laid or dock any faults to ensure the finished floor meets industry and customer standards.

As a general rule we recommend at least 10-15mm expansion gap be allowed around the perimeter of a floating floor. At no point should the flooring be in contact laterally with any solid structure. The flooring must be allowed to move independently or damage will occur, such as cupping, peaking, gapping or squeaking . This expansion gap allowance can also be affected by the climatic conditions of the site. For example in dry areas such as Mildura or Adelaide the gap can be reduced to 5 to 10 mm and in more humid areas such as Queensland or Northern NSW the gap should be 15 to 20 mm. **If you are unsure about the product and how it will respond to the environment then please contact the manufacturer for guidance.**

Flooring on stairs must be directly stuck with the appropriate polyurethane adhesive to the existing tread & riser, matching stair nosing to bet fitted on the front edge of each step. Also please make sure that the stair nosing meets the slip test guidelines for each state in Australia.

A good quality 2 or 3mm closed cell foam underlay, fitted with the a plastic moisture barrier must be installed prior to any floating floor installation. Also be aware that the moisture barrier on underlays can be ineffective against **high** moisture within the concrete slab, in excess of 5% MC or 75% RH. In this case it is strongly advised that you first install 200um plastic moisture barrier sheet first on the concrete and then the underlay.

Over lap the plastic moisture barrier sheet by at least 150mm and tape joins fully with a moisture proof tape, also tape the joins of the underlay you choose to install before you install the timber floor.

When installing a Tongue and Groove product a good quality Cross-linked PVA Glue should be applied to the top of the tongue over the whole length and end of the board. See heated slab requirements.

All trims or skirting must be fitted with a 1mm clearance gap above the flooring to allow for the correct raft movement. This gap must not be caulked or siliconed in any way.

After installation, if other trades are still to complete their work, a breathable protective covering should be installed over the flooring. Non breathable plastic should not be used as this will damage the product due to increase of moisture. The flooring must be clean and clear of any debris prior to fitting of protection. The product must be taped using on edges with 3m Scotch Blue tape. Other tapes can cause surface damage.

Direct Stick Instructions

All direct stick subfloors should be checked and logged for moisture content both timber or concrete subfloors. If installed over a concrete slab the ATFA recommend that the Relative Humidity (RH) be checked using the ASTM F 2170 test method/ AS 1884:2013. This information must be kept for later reference. In all cases on concrete slabs it is high recommended that an industry level moisture barrier such as Bostik , Wakol or Mapei should be installed to 200 micron thickness. Usually this requires two coats of the product. If a timber substrate is high in moisture, this suggests that there is an issue with water or moisture under the subfloor and must be addressed prior to installation.

The subfloor levelling must be within the normal 3mm over 3 meters as previously mentioned.

The subfloor should be checked for any contamination or structural damage prior to installation that might effect the adhesion or performance of the floor. If installing directly over a solid strip timber floor the Oak Flooring or Herringbone must be laid perpendicular to the direction of the current flooring. If this is impossible a 12 mm Plywood substrate should be installed prior to laying.

The adhesive should be an industry recognised polyurethane product such as Bostik, Mapei or Wakol. The product must be applied as per all the manufacturers recommendations. Terra Mater Floors though insists that at least a 5 to 6mm notched trowel be used to ensure the correct bed of adhesive under all boards.

The installer must ensure the timber is adhered to the subfloor. This might require extra weights be placed on the area in some circumstances to ensure contact with the adhesive bed.

Generally direct stick floors can be installed with a larger raft area without expansion allowances than floating floor system but spans over 12 to 15 meters must be fitted with an expansion gap over width or length.

Installation over heated slabs.

The in-slab under floor heating needs to be started and run at desired temperature for at least 2 weeks prior to installation of Flooring.

NOTE: The slab surface temperature must not exceed 26 degrees Celsius at any time.

After 14 days, turn off slab heating and allow 4 days to pass in order to allow subfloor to cool down and reach room temperature before installation.

Please note that the total timber floorboard thickness should to be no greater than 20mm.

After floor installation is complete, your flooring requires gradual acclimatisation in conjunction with the heating system.

Heating system temperature is to be increased by 2 degrees increments each day until desired temperature is reached (not exceeding 26 degrees Celsius) and when turning heating off, also decrease by 2 degrees increments each day until it is off.

Shrinking between boards, cracking and minor cupping can be expected when installing over radiated floor heating and does not constitute as a product defect.

If the flooring product has 5G or drop locking system and is floated over a heated slab it is required that Crosslinked PVA glue be used as per the regular tongue and groove installation.

Laying Instructions for Floating Engineered Timber Flooring (5G)

- First plank, first row. Place a spacer of 15mm thickness to the left and position the plank against the wall.

Second plank, first row place this plank gently and tight to the short end of the first one.

Fold the panel down in a single action movement. During the fold down, make sure the panels are tight against each other. Afterwards press down or slightly tap down at the short end just installed till it clicks. No major force is required.

At the end of the first row, put a spacer ≈ 15mm, to the wall and measure the length of the last plank to fit.

Cut with a jig saw - hardwood turned down to eliminate/reduce damage to the face of the panel. Or if cutting using a hand saw, cut it with the hardwood visible face up. Then install it as previous plank.

Minimum distance between short ends of planks in parallel rows shall not be less than 500mm. This is for stability of the floor.

Second plank, second row place the panel at an angle into the groove of the previous row making sure that the end of the panel is tight/flush to the short end of the previous panel.

Fold the panel down in a single action movement with a slight press to the left to the short end of the previous panel. Again using the tapping block tap it against the long end into the previous row. During the fold down, make sure the panels are tight against each other.

As it flattens itself to the floor, press or gently tap the top of the short end of the installed panel until it clicks. Finish installing this plank by tapping it with a tapping block on the long side to ensure secure installation.

After 2-3 rows, adjust the distance to the front wall by placing spacers ≈ 15mm. Once the adjustment is done against the main wall, continue to install till the last row.

Last row (and perhaps also first row). The minimum width of the last plank should be NOT LESS than 50mm. Remember distance to wall is 15mm. TIP: Put a spacer before measuring. Cut the panels lengthwise and glue the short ends.

Installation at radiators. Drill the holes 20mm larger than the diameter of the pipes. Cut out the panel (with the thinnest blade possible) Install the plank as per normal. Glue the cut out piece back again.

Your floor can very easily be disassembled, which enables replacement during installation and also during use.

Separate the whole row by carefully lifting up and slightly knocking just above the joint. Fold up and release the whole long side.

Special Laying Instructions for Herringbone Flooring

Herringbone Flooring can only be laid using the Direct Stick method. See above instruction on Direct Sticking.

Determine the best layout for the floor and direction of pattern . Generally this will be the length of the room.

Snap a chalk line along the whole length of the installation area as a centre line.

Cut a perfect square 888 x 888 mm piece of plywood as a starter board. Fix this board on diagonal corners to the snapped centre line.

From the outside opposing corners of this board snap two further lines parallel to the centre line. These lines are the outer edges of the two boards. This process can be repeated on each outer row of necessary.

Maintenance Instructions

Engineered Timber Floors are Hygroscopic, or will constantly gain and lose moisture by nature, so to ensure that the floor is kept in excellent condition and to avoid any damage it is IMPERATIVE that that the humidity level be controlled at all times. This is especially true in excessively humid or dry areas of our continent.

The OPTIMAL HUMIDITY for Engineered Timber Flooring is between 40% - 60% . If humidity drops below 40% and above 60% over an extended period please either humidify or dehumidify the home or environment where the floor is installed. Maintaining a consistent and correct in home environment is very important so the flooring will not suffer any potential structural damage or dimensional changes, such as cupping, shrinkage, checking or gapping. **It must also be noted that creaking or squeaking can also be caused by dimensional changes to the product caused by poor humidity control in the environment.**

Fitting a Hygrometer , a cheap option for the concerned customer, in the central part of the home is a MUST to understand what is happening in the environment of your home.

It must be noted separately that Evaporative cooling will severely increase the moisture levels within the home. Again the humidity level of the environment must be kept below 60% , a figure very difficult to achieve with this type of cooling. Damage to flooring is very common with this type of cooling and generally will not be covered by warranty.

Temperature of the internal environment must should be maintained between 18 - 24 Degree Celsius to avoid dimensional changes to the flooring product. A normal temperature for human comfort inside a home.

Direct sunlight can also damage Engineered Timber Flooring. This can issues such as fading, colour changes, checking or cracking, shrinkage. Windows must be covered in these areas with curtains or blinds.

In areas where the flooring comes into close proximity with a fire place, stove or other heating systems the flooring can change overall dimension which may cause some shrinkage and gaps appearing.

Heavy objects such bookcases, billiard tables, kitchen units, that exceed 200kg/object area or if the load is greater than 30kg/cm2 should not be placed on a floating system. Damage can occur due to incorrect expansion and lack of correct raft movement.

During maintenance or cleaning avoid household cleaners that contain bleach, abrasives or ammonia and use a well rung out mop so excessive moisture is not left on the floor surface. A spray mop is the ideal cleaning tool along with the correct timber flooring cleaner such as Bona or Loba. **Do not use Steam Mops as this will damage the flooring.** Daily cleaning should be done with a vacuum cleaner or soft broom, any sand or dirt should be immediately removed because they can cause surface scratches.

Fit self adhesive felt pads under all your furniture straight after the floor is installed to avoid scratching.

Use protective mats at all external doors to remove foreign material from your shoes to reduce the risk of scratches. Rubber based mats and protective products can leach into the flooring surface and should not be used.

Never slide or roll appliances across the floor as this will cause bruising and scratches to the surface.

Spiked heels can scratch and dent flooring product and should be avoided.

Animals nails should be trimmed to avoid damage to flooring.

Extra coats of post installation polyurethane or water based coatings are not recommended and will not be covered by warranty.