INSTALLATION GUIDE
FOR ENGINEERED WOOD FLOORING

OWNER/INSTALLER RESPONSIBILITY: READ CAREFULLY PRIOR TO INSTALLATION

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 sub 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 sub 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. When hardwood flooring is ordered, 5% 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. The period required to acclimatise the flooring should be determined by taking moisture readings of the flooring and also from within the room. The fitter should aim for the two to be in equilibrium. Failure to acclimatize may cause excessive expansion and contraction. Do not open the packs prior to installation.
The temperature must be at least 18°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. 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 5mm over a 3 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% 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 subfloor moisture level is too high, either wait until it is dry or use a PU Primer / Liquid DPM such as Seal Tight 100 which will seal moisture in cement floors up to 6% moisture.

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Pump / Anhydrite Screeds:

For pump / anhydrite based screeds (usually 45-50mm thickness with underfloor heating), the moisture content level of the screed must be below 0.3% CM Moisture (Tramex Concrete Encounter Blue Scale highlighting CM % Moisture in diagram). Please note PU Primers or Liquid DPM's are not suitable for use over Pump / Anhydrite Screeds.

Timber Subfloor:

Suitable timber subfloors include PAO Battens (Kiln dried approx. 12%), flooring grade plywood or OSB Grade 3 (Kiln Dried approx. 12%). If using battens, they should not be further than 300mm apart. Construction Plywood or Rough Timber battons are not suitable subfloors due to their high moisture content. If the timber subfloor has a moisture content higher than 12% or you are nailing to rough battens/joists, we recommend the use of Bitumen Paper which helps prevent moisture penetration from the timber subfloor. Bitumen paper is used at installer's/owner's risk.

Moisture Barrier:

Always use builder's polythene or a suitable moisture barrier over cement floors for additional moisture protection. Overlap seams by 30cm and tape with duck tape (or similar waterproof tape), extend the polythene up the wall behind the skirting.

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.

Rustic (or Similar) Grades:

We do not guarantee Rustic grades as they may contain boards with open knots, cracks or minor defects Longitudinal Bowing In the case of engineered flooring, it is possible for some boards to be bowed on the length. This is more prone in higher humidity environments. These boards can be installed without any problem as longitudinal bowing is self correcting. Some boards may need to cut and used as a starter and end piece.

STAGE 2: Installation

Methods of Installation

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

Laying Direction:

The laying direction normally depends on the main sources of light fall in the room e.g. French windows. The boards should run parallel with the entering light for best appearance. Ensure that the boards are always laid lengthways in narrow hallways. In the case of L, T or U shaped hallways they may require placing an expansion gap and changing the laying direction of the flooring.

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1: Floating Installation

Suitable subfloors for a floating installation include cement screed, flooring grade Plywood or OSB Grade 3 (Kiln dried 12%). Construction Plywood is not a suitable subfloor due to its high moisture content. The widest floor that can be installed in a floating installation is 220mm. Timber flooringwider than 220mm should be glued down. Please consult page 1 section “Sub-floor Moisture” of these instructions for further information regarding correct job site moisture levels.

Important: Over Cement Screeds, always use polythene. A good quality underlay should be used underneath the flooring. The installer will require a heavy tapping block, PVA glue, clamp straps and woodworking tools to complete the installation.

Expansion: Wood is a living material. Always remember to leave an expansion gap of 15mm at walls, pillars, stairs, doorways etc and around any fixed object. Fixed objects also include door stops and heavy items such as island or kitchen units. For any pipes: drill a hole with a diameter about 15mm larger than that of the pipe. It is recommended to place an expansion profile at all doorways. Do not fix any objects to a floating floor installation e.g. kitchen island unit fixed to subfloor through the flooring as this prevents the floor from expanding / contracting throughout theseasons. If there are very heavy objects on top of the flooring, then a glue-down installation is recommended.

The maximum area in which an engineered floor should be floated is 8 metres in any direction. In larger areas, a suitable profile should be used or alternatively a glue-down/nail down installation should be considered.

1: Begin installation along the longest wall, or an outside wall, which is most likely to be straight and square with the room. At a minimum of 3-4 points, measure out from the wall 1 board width (including the tongue) and also include the expansion gap of 15mm. Snap a chalk-line connecting these points, parallel to wall and perpendicular to adjacent walls. Since most walls are not square, you may have to trim the edge of some planks along the walls.

2: Fix a straight edge (e.g. 3 x 1 PAO) to the subfloor along the chalk-line and work off this (Be careful there are no water pipes running underneath). Using the longest and straightest board, install your first plank with the tongue facing away from the wall along the chalk line. Use a good quality PVA wood glue compliant with EN204D3 or BS4071. All boards must be glued. Spot gluing is not sufficient; a full glue line must be applied inside the groove on the long side and the short ends. Remove any excess glue with a damp cloth. It can take over 24 hours for PVA glue to fully harden so please wait 24 hours before traffic and furniture is allowed into the room.

NOTE: Proper alignment is critical. Misaligned starter rows can cause side and end gaps. When you have the starter row completed, you can start the next row.

3: The flooring joints should be staggered so that rows do not appear aligned. If you come across a bowed or twisted board, cut this in half and use this as an end piece and starter piece. After completing 6-8 rows of the room, clamp straps may need to be used to tighten the floor together. This will tighten up any floor joints where minor gaps have opened during the installation. This should be left for 30 minutes for the glue to start working. After this time, continue on as before, again stopping if necessary when you have completed another 6-8 rows to apply the clamp straps for 30 minutes.

4: When you get to the far wall, you will likely be required to cut the final row in width to fit against the wall. Do this by laying a plank in position and scribing a line on the plank (Don’t forget to leave your expansion space of 15mm from the wall). Cut planks for the last row and glue them into place. Go back to the beginning of the installation, position the first 1-2 rows and glue them into place. The clamp straps should again be fixed to the flooring to ensure there are no gaps while the glue is setting.

NOTE: It is extremely important to blend planks from several cartons to ensure a good balance of colour and graining.

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2: Glue Down Installation

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 contaminates such like sealers and old adhesive residue. All subfloors must be structurally flat within industry standards of 5mm variance across 3mt. All sub-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.

1: Begin installation along the longest wall, or an outside wall, which is most likely to be straight and square with the room. At a minimum of 3-4 points, measure out from the wall 1 board width (including the tongue) and also include the expansion gap of 15mm (For narrow boards, it may be necessary to measure 2 board widths from the wall). Snap a chalk-line connecting these points, parallel to wall and perpendicular to adjacent walls. Since most walls are not square, you may have to trim the edge of some planks along the walls. Prior to installing flooring, we highly recommend that a straight edge be firmly secured along the chalk line as a guide and to prevent the planks from shifting during installation. Alternatively, the first row can be face nailed with finishing nails into a wood subfloor or spring nailed into a concrete sub-floor (Be careful there are no water pipes running underneath).

2: Spread adhesive from the chalk line/straight edge out to approx the width of two planks using a trowel size according to the adhesive manufacturer's recommendations. Using the longest and straightest board possible, install your first plank with the tongue facing away from the wall along the chalk line/straight edge and secure into position.

NOTE: Proper alignment is critical. Misaligned starter rows can cause side and end gaps.

3: When you have the starter row completed, you can start the next row. When the first two rows are straight and secure, spread 700mm to 900mm of adhesive across the length of the room. Never spread more adhesive than can be covered in 30 to 45 minutes (This time may vary depending on quality of adhesive being used). Check for a close fit at all end and side joints. Continue to install planks and tap or pull them into place when necessary. Any badly bowed or twisted boards should be cut and used as a starter and end piece. Weights may be required to be placed on the floor in certain areas to ensure full contact until the adhesive is set.

NOTE: It may be necessary to use clamp straps for a period and pull the floor together if some minor gapping develops.

4: Remember to leave an expansion gap of 15mm between the flooring and walls. As stated above additional expansion may be required through the floor for solid flooring or large areas of engineered flooring. This is to be determined by the installer.

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5. This by laying a plank in position and scribing a line on the plank (Don't forget to leave your expansion space of 15mm from the wall). Cut planks for the last row and install. Go back to the beginning of the installation and remove the straight edge. Spread adhesive on to exposed subfloor and position the final 1-2 rows into place. Remove all expansion spacers at wall and any temporary face nails before applying trim mouldings / skirtings.

6: Allow adhesive to cure for at least 24 hours before permitting foot traffic or moving furniture onto floor.

If the floor is being sanded afterwards, the adhesive must be allowed to cure for a minimum of 48 hours prior to sanding.

NOTE: It is extremely important to blend planks from several cartons to ensure a good balance of colour and graining.

NOTE: It may be necessary to leave weights on flooring boards which are pushing up to ensure full contact with the subfloor while the glue cures. This is normal practice and these weights can be removed once the glue has fully set.

3: UNDERFLOOR HEATING (We do not guarantee solid flooring over 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 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 5mm over 3 metres. A moisture check must also be done on the screed prior to any installation. The temperature below the floor must never exceed 28 degrees celsius and the maximum difference of temperature per 24h is 5 degrees Celsius. There are 2 types of installation:

Floating Installation Recommendations (Please follow below guidelines and floating installation instructions):

• 500 Gauge Polythene – over cement floors
• 2mm Cork Underlay or Acoustalay 1500 – lowest heat transfer resistance.

Glue Down Installation Recommendations (Please follow below guidelines and glue down installation instructions) :

• Sealtight 100 PU Primer (If Cement Moisture is above 2.0% CM but less than 4.0% CM (< 6% on red scale below)
• 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 5°c 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.

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Guidelines:

• Moisture of concrete must not be higher than 3.0% for cement screeds on the Red scale based on Tramex Concrete Encounter (or approx. 1.8% CM on yellow scale)
• For anhydrite or calcium screeds (pump screeds), the moisture level must be 0.3% CM or below based on Tramex Concrete Encounter Blue Scale)
• 500 Gauge Polythene (If floating installation over screed, extend up walls behind skirting - tape all joints with waterproof tape)
• The floor needs to be level – (Max 5mm deviation over 3mt)
• Bring Flooring into house in normal living conditions i.e. Temp >18°, Humidity 40-60%
• Surface temperature of screed not to exceed 26° degrees celsius
• Flooring should be separated at doorways with an expansion trim
• 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 PLANKS FOR POSSIBLE FUTURE REPAIRS

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 we recommend you use protective pads and castor cups under chairs and furniture legs. If there is a door leading outside from the room where you have installed your hardwood flooring, use a doormat to catch the dirt and absorb the humidity. Never use a rubber mat, with Styrofoam or plastic backing. If you must move heavy pieces of furniture (e.g. refrigerator, piano etc.), never slide them directly over the flooring. Instead, place a piece of carpet face down between the legs and the flooring and pull on the carpet to move the furniture.

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