Installation Recommendations

Owner Owner/Installer Responsibility

Hardwood flooring is a product of nature, which is characterised by distinctive variations in grain and colour and are not considered flaws. This hardwood flooring is manufactured in accordance with accepted industry standards, which permit a grading defect tolerance not to exceed 5%. The defects may be of a manufacturing or natural type.

The owner/installer assumes all responsibility for final inspection of product quality. This inspection of all flooring should be done before installation. Carefully examine the flooring for colour, factory finish, grade and quality before installing it. Do not install (or cut off) pieces with glaring defects whatever the cause. If material is not acceptable, contact Oxford Imports before installation. Installation implies acceptance. No warranty will be offered for material with visible defects once the product is installed.

Before beginning the installation of any hardwood flooring product, the installer must determine that the environment of the job site and the condition and type of the sub floor involved is acceptable, ensuring that it meets or exceeds all requirements which are stipulated in the installation instructions which follow. The manufacturer declines any responsibility for job failure resulting from or associated with inappropriate or improperly prepared sub floors or job site environment deficiencies.

The user of stain, filler or putty stick for the correction of defects, small cracks or face nail holes during installation should be accepted as normal procedure.

When ordering. 5 – 10% must be added to the actual square metres amount needed for grading and cutting allowances.

Job site inspection & acclimatisation

In new construction, hardwood flooring should be one of the last items installed. All work involving water or potential ground debris (plumbing, dry wall etc) should be completed prior to wood flooring being installed. Heating and air systems should be fully operating, maintaining a consistent room temperature at 15°C - 30°C and a constant relative humidity of 45 – 65%.

Flooring should not be delivered until the building has been closed in and cement work completed, plastering, painting and other materials are completely dry. New concrete and plaster should be cured and at least 60 to 90 days old. Check basements and under floor crawl space to be sure that they are dry and well ventilated to avoid damage caused by moisture.

Flooring should be at the job site at least 72 hours prior to installation. Do not open cartons until ready to install as engineered floor does not need to acclimatise.

Handle with care. Do not stand timber packs on their ends. Store flooring in a dry place.

Do not store directly on concrete or next to outside walls. Cartons should be placed in the installation area.

The installation site should have consistent room temperature of 15°C - 30°C and a constant relative humidity level of 45 – 65% for a minimum of 5 days prior to installation of any flooring product.

Engineered flooring is for below grade, on grade or above grade installation only and cannot be installed in full bathrooms or laundries.

Some engineered flooring can be installed over Radiant Heat using the following installation method.

General specification <u>under floor heating</u>

1. Ensure all surfaces must be clean, dry, level, free of voids 3mm over 3m free of curing compounds, loose materials, oil, grease and sealers.
2. All plywood, chipboard, fibre cement sheeting and Concrete to be installed in accordance with residential footings and slabs code **AS2870-1996 and concrete is to be no greater than 5.5% moisture content or 65% relative humidity**. If moisture content exceeds these recommendations a suitable moisture barrier system will need to be used like Bostik moisture seal or similar.
3. Oxford Timber flooring is to be installed as glue down system using, Bostik Ultraset, Sika, polyurethane adhesive or similar.
4. When installing Oxford Timber flooring over a heated slab-floor, it is recommended that the sub-floor **be heated to its normal operating level for 3-4 days to remove excess moisture** then turned off one day before installation, the heating operating panel is to fixed to a maximum of 27 degrees Celsius, to ensure the heating has no adverse effect on the adhesive or the timber, this needs to be strictly applied to or all warranties/guarantees and void. Most under floor heating is run between **20 and 27 degree Celsius**.
5. 48 hours after the installation, the under floor heating should be turned **on**. Starting from the minimum setting, the temperature should be raised 1degree per day, until the maximum setting of 27 degrees (or specifically chosen temperature) is reached.
6. Maintain the chosen setting for a period of **at least** two weeks.

Sub Floor Preparation

Approved sub floor types:

- EWPAA (Engineered Wood Products Association of Australasia) approved 15mm minimum thickness, preferred 19mm, or thicker structural – exterior plywood. When installing approved plywood, refer to specific structural panel manufacturer's instructions
- 19mm underpayment grade OSB (Oriented Strand Board) on 400mm centre floor joists properly nailed. (Nail down install not recommended on OSB)
- Existing wood floors (installed at right angle only), concrete slab, structafloor, plywood sheets installed in accordance with AS2870-1996.

Sub floors must be:

- Clean – Scraped or sanded, swept, free of wax, grease, paint, oil, previous or existing glues or adhesives and other debris
- Structurally Sound – Nail or screw any loose areas that speak. Replace any damaged sub flooring or underlayment. Ensure the sub floor is level 3mm over 3m maximum.

Wood Substrates – Test the moisture of the wood substrate using a calibrated moisture meter approved for testing wood moisture according to the meter manufacturer. The reading should not exceed 13% or read more than a 2% difference than moisture content of products being installed.

Concrete Slabs (regardless of existing floor covering) – All concrete floors must be tested for moisture content prior to installation of the hardwood flooring. The moisture content of the concrete sub floor must not exceed 5.5% or 65% relative humidity.

Below are methods to test to indicate moisture is present in the concrete sub floor:

1) Use an approved calibrated concrete moisture meter as a preliminary measurement for moisture. Follow manufacturer's specific calibration requirements
2) Perform a polyfilm test. Tape down 600 x 600mm polyfilm squares (a clear garbage bag or plastic drop cloth will do) in several places on the floor. Wait 24 - 48 hours, and then check for the appearance of condensation on the inside of the bag or plastic for a darkening on the concrete sub floor. Either occurrence signals the likely presence of excess moisture, requiring a mandatory relative humidity test

- If the test results exceed this number the concrete slab should be sealed with appropriate sealers, Bostik or Sika Moisture Seal or similar, to correct those emissions as per the manufacturer's recommendations

Note – If a sub floor has been flooded or rained upon it may not be suitable to install flooring.

Installation on Plywood/Wood Substrate

Installation on concrete slabs

All concrete sub floors should be tested for moisture content. New concrete slabs require a minimum of 60 days curing time before installation. Concrete sub floors must be free of existing adhesives, grease, oil, dirt and curing compound. These may be removed chemically or mechanically, but do not use a solvent based striper. The residual solvents can prohibit satisfactory bond of floor adhesives, the concrete and the flooring. To ensure a lasting bond make sure the perimeter of the foundation has adequate drainage and vapour barrier.

Installation on Sub-floors other than wood or concrete

Note – Perimeter glued resilient vinyl and rubber tiles are unacceptable underlayment's and must be removed. Terrazzo, tile and any other hard surfaces that are well bonded to sub floor, dry, structurally sound and level, as described above, are suitable as a sub floor for this engineered hardwood flooring installation. As above, the surface must be sound, tight and free of paint, oil, existing adhesives, wax, grease and dirt. Terrazzo and ceramic tile must be scuffed to make a mechanical key to assure adhesion.

WARNING – Do not sand existing resilient tile, sheet flooring, backing or felt linings. These products may contain asbestos fibres that are not readily identifiable. Inhalation of asbestos dust can cause asbestosis or other serious bodily harm. Check with local, state and federal laws for handling hazardous material before attempting the removal of these floors.

Job site preparation

- Verify floor is level and structurally sound. Repair as needed. Sub floor irregularities may cause any wood flooring installation to develop hollow spots between the flooring and the sub floor. These are not the result of any manufacturing defect
- Undercut door casings
- Remove any existing wall base, shoe moulding, quarter round or doorway thresholds

Glue Down installation method

Required tools and accessories

- 3.2mm to 4.8mm deep v notch trowel – follow adhesive manufacturers guidelines
- High Quality urethane Adhesive, Bostik Ultraset or similar
- Broom
- Tape Measure
- Moisture Meter (wood & concrete)
- Rubber Mallet (light coloured)
- Circular or Hand Saw
- Miter or Table Saw
- Pry Bar
- Drill with drill bit
- screw shank nails
- Chalk Line and Chalk
- Hammer
- Safety Equipment (Goggles & Mask)
- Utility Knife
- Nail Punch

Step 1: Getting started

- Install the flooring parallel to the longest outside (exterior) wall in the room.

Step 2: Spreading the adhesive

- Hold the trowel at a 45° - 60°angle and spread adhesive into an area no larger than 1 to 2m² at one time, refer to adhesive manufacturers instructions

Step 3: Installing the Floor

- The flooring should be installed from several cartons at the same time to ensure proper colour, grain and shade mix
- After the adhesive has been spread following the above mentioned instructions, start with the first piece of flooring. Install the piece of wood with the groove towards you and the tongue facing the opposite wall. Line up the groove of the flooring with the chalk line then press the flooring into the adhesive
- Working from left to right, lay the next board and continue working towards the right until you need to cut a piece to complete the first row. Measure the size you need to complete the first row and cut to length. The balance of the piece you cut will start the next row
- If the left over piece is less than 150mm long, cut another piece at a random spot, and start the second row with it. Be attentive to staggering the ends of the boards at least 150mm in adjacent rows to avoid clustering end joints. A soft rubber mallet can be used to tap the boards on the face until they are pulled into proper position
- To cut the boards always saw with the teeth cutting down into the face or top of the board. Cutting from the top down helps protect the surface. For wood sub floors: If you are working on a wood type sub floor, use small finishing nails to hold the first row in place. Fill nail holes with filler which is manufactured to blend with your flooring. For concrete sub floors: If you are working on a concrete sub floor, take a piece of 25mm x 50mm x 200mm pine board and using 25mm concrete nails, nail the board onto the dry side of your chalk line. This will hold your first row of starter boards in place
- Complete the rest of the installation on your working area by following the same installation procedures that are stated in part 2 of this section
- Ensure that there is 90% to 100% contact between the board and the hardwood flooring adhesive

Step 4: Installing the last row

Most often the entire length of the last row will need to be cut so that it is narrow enough to fit the remaining space. When this occurs, follow this simple procedure:

- Lay a row of boards, unglued, with the tongue toward the wall, directly on top of the last row installed
- Take a short piece of the hardwood flooring that is being installed
- Draw a line with a pencil along the row moving down the wall. The resulting line gives the proper width for the last row which, when cut, can then be wedged into place using the pull bar
- You will need to use the pull bar extensively to make the last row properly flush

Step 5: For unfinished products only sanding and finishing the floor

- DO NOT start buffing/sanding product until adhesive has cured for a minimum of 24 hours, preferably 48 hours
- Before sanding the floor, make sure all cracks or knots are filled with wood filler to the desired colour of your finished floor. Also sweep the floor clean immediately before sanding
- Flooring has been pre-sanded at the factory. Finish sanding with an 80 or 100 grit paper is all that should be needed prior to buffing and the finish is applied
- Make one or two passes with the sander until the flooring is sanded smooth and clean of all putty or filler
- The sanding should take place with the grain direction of the wood. It may be necessary to use an Edger or orbital palm sander to sand around the edges of the walls and in hard to reach areas

- The finishing process should begin immediately after the sanding
- Remove all sander dust with a broom, tack cloth and vacuum
- The finish process involves a stain, if desired, and a protective urethane coating to the flooring. It is important that only compatible products are used for the stain, seal and finish process and that you always refer to the finish manufacturers compatibility requirements and application instructions.

Floor protection after installation.

Once the Oxford Engineered flooring has been installed, whether it be raw timber, that is still to be sanded and coated or a sanded coated finished floor, under no circumstances is Black plastic or similar products to be used, to protect the floor from other trades or walking traffic, a breathable protection product, needs to used, like BT160 from www.industrialprotectivefilms.com.au this product is available through Portugal Cork Co Qld. www.portcork.com.au

Black plastic or similar products, can and will make the timber floor sweat and will cause expansion and contraction problems once the protective covering is removed.

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