



## Installation guide suitable for First Floors Engineered Flooring

### **ATTENTION – INSTALLER/OWNER RESPONSIBILITY**

Hardwood is a natural product containing natural characteristics in colour, tone and graining. Slight variation in colour is to be expected in a natural Hardwood floor. First Floors cannot guarantee against natural variation in each plank. The owner/installer assumes all responsibility for final inspection of product quality.

Warranties DO NOT cover materials with visible defects once they are installed.

Installing Engineered flooring requires a level of skill and First Floors recommends only qualified tradespeople with the relevant skill levels install First Floors Engineered Flooring.

### **JOBSITE CONDITIONS**

First Floors Engineered Flooring does not need to be acclimatised to the job site unless the flooring will be transported from one extreme temperature into another. If there is a severe temperature difference, make sure to condition the cartons of First Floors Engineered Flooring, for a minimum of 24 hours before the installation.

First Floors Engineered Flooring should only be installed when the location is beyond “lock up” stage, is completely weather proof and the internal conditions are close to what they will be when occupied.

Please refer to the ATFA Engineered Flooring industry standards technical publication for moisture content and humidity guidelines prior to installing the engineered floor.

### **SUB-FLOOR PREPARATION AND RECOMMENDATIONS**

All sub-floors must be installed as recommended by their manufacturers. Warranties offered by First

Floors do not cover problems caused by inadequate or inappropriate subfloor installation.

Install First Floors on a clean, structurally sound sub-floor. It must be free of wax, paint, oil, sealers, adhesives and other debris.

**LEVEL/FLAT-** Sub-floors must be level with no more than a 3mm deviation over 3 metres.

If deviations are greater than the allowed tolerance, use an appropriate self-leveling compound or grind the surface of the subfloor to bring the area into tolerance.

Leveling materials must provide a structurally sound subfloor that does not affect the holding power of the fastener.

Note – First Floors Engineered Flooring is not designed to be a structural floor and cannot be installed direct on battens or bearers & joists. A structural sub-floor, such as plywood or particleboard must be installed over battens or bearers & joists.

### **Concrete Sub-Floors**

New concrete slabs require a minimum of 60 days drying time.

**DRY-** Check moisture content of the subfloor with the appropriate moisture test – Concrete should not have a moisture content greater than 5% or 70% in-slab relative humidity.

Concrete must be free of paint, oil, existing adhesives, wax grease, dirt and curing compounds. These may be removed chemically or mechanically, but do not use solvent-based strippers under any circumstances. The use of residual solvents can prohibit the satisfactory bond of flooring adhesives. It is important to ensure a proper bond between the adhesive and the concrete, and flooring.

### **Wood & Plywood sub-floors**

All wood & plywood subfloors must be structurally sound,

dry, solidly fastened to appropriately spaced floor joists or concrete slab, and in compliance with all local building codes.

First, make sure the subfloor is dry. The Subfloor wood moisture content cannot exceed 12% prior to installation of a glue-down, nail-down or floating floor. To determine wood moisture content use a quality moisture meter.

### **Plywood Over Concrete**

Install a polyethylene moisture barrier, at least 200um thick over the slab, lapped 200 mm at joints and tape joints. The barrier is also required to go up the edge of the engineered floor, at least as high as the upper surface of the flooring.

The recommended plywood sub-floor is structural grade, 12 mm thick with a type A bond. Sheets to be installed in a ‘brick’ pattern with a 6 mm gap between sheets and a 10 mm gap to internal and external walls. Sheets are to be staggered 900 mm so that from sheet to sheet, fixings do not line up.

Plywood sheets are to be fixed to the slab with hand driven 50 mm long by 6.5 mm ‘Powers SPIKES’ to manufacturer’s recommendations or equivalent. 28 spikes are required per 2400 mm x 1200 mm sheet, equally spaced and with the outer spikes 50 mm from the sheet edge. The head of the SPIKE is to be driven below the surface of the plywood.

### **Radiant Heated Sub-floors (Glue or Nail Down Only)**

The radiant heat system must be on and operating at normal output for a minimum of 14 days prior to the start of installation.

Before installing over a radiant-heated subfloor turn off the heat and wait until the floor has reached room temperature. After installing the floor, turn the heat on, increasing it a maximum of 5°C per 24-hour period.

Caution: The slab surface must never exceed 28°C in temperature while in service.



Excessive heat or rapid heating may cause cracking, cupping and other forms of failure and will void the warranty.

*Note: In installations over radiant heat, moderate surface checking, cracking, shrinkage between planks and slight cupping are all to be expected and do not constitute a product defect.*

### PREPARATION

Remove all moldings and skirting boards and undercut all door frames with a hand or power saw using a scrap piece of flooring as a guide.

### “Racking the Floor”

Whether you choose to install the floor with glue, nails, or staples start by using random length planks from the carton or by cutting four to five planks in random lengths, differing by at least 150mm. As you continue working across the floor be sure to maintain the 150mm minimum between end joints on all adjacent rows. Never waste material; use the left over pieces from the fill cuts to start the next row or to complete a row.

*Note: When installing a pre-finished wood floor be sure to blend the wood from several cartons to ensure a good grain and shading mixture through out the installation.*

### GLUE DOWN INSTALLATION GUIDELINES

Use a suitable elastomeric hardwood flooring adhesive to install First Floors Engineered Flooring using this method.

Caution: When you choose to install using the glue down method follow all guidelines set by the adhesive manufacturer including the use of a suitable moisture membrane, if required. By not adhering to the guidelines you can void your flooring warranties

#### Step 1

Select a starter wall. It is recommended to start the installation along an exterior wall; it's more likely to be straight and square with the room. Measure out from the wall the width of two planks and mark each end of the room and snap your chalk line.

#### Step 2

Trowel spread the adhesive from the chalk line to the starter wall using the recommended manufacturers trowel. It is important to use the correct trowel at a 45° angle to get the proper spread of adhesive applied to the sub-floor, which will produce a proper and permanent bond. Improper bonding can cause loose or hollow spots.

*Note: It is recommended to change the trowel every 250 - 300 square metres due to wear down of the notches. This ensures you always get the proper spread of adhesive.*

#### Step 3

Remove the tongue from the first row of planks. Install the first row of starter planks with the removed tongue side of the plank facing the starter wall and secure into position. Alignment is critical and can be achieved by securing a straight edge along the chalk line or by **top nailing the first row with finishing nails (wood sub-floor), or concrete pin nails (concrete sub-floor). This prevents slippage of the planks that can cause misalignment.**

Note: Ensure a minimum 10mm expansion gap is left around the complete perimeter of the floor and between the flooring and any other fixed structure ie door frames, kitchen cupboards, joinery etc. In rooms larger than 6 metres, 10mm will not be sufficient and an extra allowance of 1mm of gap per 1 metre needs to be added to the 10mm. Use wedges to maintain the expansion gaps until the adhesive dries. Then ensure all wedges are removed to provide a clear and free expansion gap.

#### Step 4

Once the starter rows are secure spread 500mm to 1 metre area of adhesive the length of the room. (Never lay more adhesive than can be covered in approximately 30 – 45 min.)

Place the tongue into the groove of the plank and press firmly in to the adhesive, never slide planks through the adhesive. Use a tapping block to fit planks snug together at the side and butt-ends.

Test for proper bond by occasionally lifting a plank and looking for good coverage (90% +), then replace it into the adhesive.

Clean any adhesive off the surface before it cures using the manufacturer's Adhesive Towels.

Occasional weighting of the planks may be required in some areas to ensure a proper bond with the subfloor – particularly in any hollows or drummy areas.

*Note: Never work on top of the flooring when installing using the glue down method*

### STAPLE OR NAIL DOWN INSTALLATIONS

Engineered hardwood floors may be installed over wood sub-floors using staples or nailing cleats.

When installing engineered wood planks by nailing or stapling, it is necessary to use the appropriate type of Flooring stapler or nailer made for the installation Engineered Wood Floors.

### Recommended Staplers and Nailers

We have tested and recommend the Bostitch Floor Runner (S3297-LHFZ). The recommended staple for the Bostitch Floor Runner is their 25mm staple (SB97-1G). We have tested and recommend the Power Nailer – #200 and #250 nailer using a 1", 1-1/4" or 1 1/2" power cleat. You must use the 3/8" or 1/2" adapter as appropriate.

Caution: We have tested the above recommended tools. Other staplers, staples, nailers and cleats may work as well. However, since they are not currently recommended if their use damages or fails to properly secure the flooring the responsibility is the installers and not the manufacturer.

You must staple or nail 25mm – 50mm from the ends and every 100mm – 150mm along the edges. This will help ensure a satisfactory installation. It is best to set the compressor PSI at 80 - 85lbs. to keep the staples



from going through or breaking the tongues. Improper stapling techniques can cause squeaks in the floor.

Adjustments may be necessary to provide adequate penetration of the nail or staple into the nail bed. You want it flush in the nail pocket. Use a scrap piece of flooring material to set tools properly before installation.

### **Installing 200um Polyethylene**

Before installation of the engineered flooring begins, install a 200um polyethylene layer over the sub-floor. This will retard moisture from below and may help prevent squeaks. Keep in mind there is no complete moisture barrier system for staple or nail down installations.

Install the polyethylene parallel to the direction of the flooring and allow a 75mm overhang at the perimeter. Make sure each run of polyethylene overlaps the previous run by 150mm or more.

#### **Step 1**

Ensure a minimum 10mm expansion gap is left around the complete perimeter of the floor and between the flooring and any other fixed structure ie door frames, kitchen cupboards, joinery etc. In rooms larger than 6 metres, 10mm will not be sufficient and an extra allowance of 1mm of gap per 1 metre needs to be added to the 10mm. Use wedges to maintain the expansion gaps until the floor is laid – then ensure all wedges are removed to provide a clear and free expansion gap.

#### **Step 2**

Place the planks with the tongue facing away from the wall and along your chalk line. Use brads or small finishing nails to secure the first starter row along the wall edge 25mm – 50mm from the ends and every 100mm – 150mm along the side. Counter sink the nails and fill with a filler that blends with the flooring installed. Place the nails in a dark grain spot in the board. The architrave or bead moulding will cover the nails when installed after completion of the installation.

#### **Step 3**

Secret nail, by hand, at a 45°-degree angle through the tongue. It will be easier if these holes are predrilled in the tongue. Nail 25mm – 50mm from the ends and every 100mm – 150mm along the sides. It will be necessary to hand secret nail the next 2 rows. A brad nailer with 25mm - 32mm brads can also be used to secret nail these rows and no pre-drilling is needed.

#### **Step 4**

Continue the installation using an engineered wood flooring nailer or stapler, using staples or nails recommended by the manufacturer. Nail or staple the flooring 25mm – 50mm from the ends and every 100mm – 150mm along the edge tongues.

#### **Step 5**

For the last row use an off-cut as a guide. Place the pieces for the last row on the second to last row with the tongue side towards the wall. Place the off-cut flush against the wall and above the plank that needs to be trimmed. Remember to allow for the expansion gap, mark the line to be trimmed. Cut the boards along the line then nail in place

### **FLOATING FLOOR INSTALLATION**

Use Hurford Flooring floating floor underlay

**everWALK** - 2mm closed cell underlay with attached moisture protection.

**hushWALK** - 2mm ultra high density premium underlay with attached moisture protection.

#### **Step 1**

Lay out the underlay running in the opposite direction to the way the engineered flooring is going to be laid. Peel the tape on the moisture protection film on the overlap and stick securely to the following run of underlay.

#### **Step 2**

Ensure a minimum 10mm expansion gap is left around the complete perimeter of the floor and between the flooring and any other fixed structure ie door frames, kitchen cupboards, joinery etc. In rooms larger than 6 metres, 10mm will not be sufficient and an extra allowance of 1mm of gap per 1 metre needs to be added to the 10mm. Use wedges to maintain the expansion gaps until the glue dries. Then ensure all wedges are removed to provide a clear and free expansion gap.

Lay the 1st row of flooring ensuring that the first plank and the last plank in this row are a minimum of 400mm long and cut to provide the expansion space on the ends. Apply a 3mm continuous bead of a crosslinked PVA glue on the bottom side of the groove of each joint. Use wedges along the sides and at each end of the row to keep the floor in place and maintain the correct expansion.

*NOTE - Ensure any glue that may accidentally come in contact with the pre-finished surface is cleaned up immediately*

#### **Step 3**

Lay the 2nd row of planks. End joints should be separate by a minimum of 150mm. Apply a 3mm bead of crosslinked PVA glue along the bottom side of the long groove and each end groove. Engage the groove of the 2nd row with the tongue of the 1st row. Engage the ends at the same time ensuring to allow the correct expansion at the beginning and end of each row. Continue this procedure for the 3rd row. It is important now to check these 3 rows, to ensure they are aligned straight, and that the remainder of the installation remains straight.

#### **Step 4**

Continue using the same procedure to lay the remaining rows. If the planks do not easily engage together, use a tapping block or pull bar to nudge them into place. **DO NOT USE EXCESSIVE FORCE** on the planks.



### Step 5

For the last row use an off-cut as a guide. Place the pieces for the last row on the second to last row with the tongue side towards the wall. Place the off-cut flush against the wall and above the plank that needs to be trimmed. Remember to allow for the expansion gap, mark the line to be trimmed. Cut the planks along the line then put a 3mm bead of glue on the bottom edge of the long groove and the bottom edge of each end groove. Place them in position and use a pull bar to pull these last boards into place.

### Step 6

Avoid working on top of the installed flooring to prevent breakage of the glue joints.

Do not allow foot traffic on the floor for 24 hours after installation is complete.

### COMPLETE THE INSTALLATION

- » For extra protection, it is recommended that a coat of WOCA Maintenance Oil is buffed into the entire floor after the installation is completed. This will ensure the floor is completely sealed and add longevity to the coating.
- » Clean the floor with the recommended wood flooring cleaner.
- » Install or re-install any transition pieces that may be needed, such as Reducer Strips, cover strips and end sections. The products are available pre-finished to blend with your flooring.
- » Install or re-install all skirting or beading. Nail this into the wall, not the floor. Inspect the floor, filling all minor gaps with the appropriate blended filler.
- » If the floor is to be protected by covering, use a breathable material such as cardboard. Do not cover with plastic.

- » To prevent surface damage avoid rolling heavy furniture and appliances on the floor. Use plywood, hardboard or appliance lifts if necessary. Use protective castors/castor cups or felt pads on the legs of furniture to prevent damage to the flooring.

### Maintaining your floor

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

- Sweep or vacuum as often as necessary to remove any loose dirt or grit.
- Use protective mats at all exterior entrances. Do not use rubber-based mats as the rubber may leach into the floor.
- Use felt protectors under heavy pieces of furniture.
- Never slide or roll furniture or appliances across your floor. Protect the surface if using a trolley to move heavy objects.
- Spiked heels or shoes in need of repair can severely damage your floor. In areas of excessive traffic and wear, make use of runners or area rugs.
- Steam mops **must not be used**. If a spill occurs, soak up the bulk liquid promptly.
- Always follow the maintenance as listed below and only use approved cleaning products.
- Keep animal nails trimmed.
- Maintain relative humidity levels between 30% and 70%.

### Maintenance of WOCA UV Oil Finish

#### Daily/ Weekly Cleaning

WOCA Natural Soap Natural - Used as a cleaner for weekly or bi-monthly cleaning, Natural Soap cleans and nourishes the floor in one step. Produced in 1L, 2.5L or 5L containers. Most users purchase the 2.5L container, coverage is 320-400m<sup>2</sup>/litre.

WOCA Natural Soap Spray - A premixed ready to use version of the Natural Soap concentrate. Ideal for spot cleaning and addressing frequent cleaning areas (under kitchen table etc.). Produced in a 750ml spray bottle.

#### Quarterly Maintenance

WOCA Oil Refresher - Used in lieu of the Soap during a normally scheduled cleaning. The Refresher contains double the solids content of the Soap, and delivers a quarterly "shot in the arm" for the floor, thusly keeping it well nourished, and looking its collective best. Comes in 1L & 2.5L containers, coverage is 150-200m<sup>2</sup>/litre.

#### Rejuvenation and Blemish Repair

WOCA Spot Remover - An aerosol solution that is used as a "last ditch attempt" (that is usually very successful) on problematic stains (blood, spilled coffee/wine that was left untouched etc.) to restore the floors appearance and re-establish the protective layer, 250ml.

WOCA Maintenance Paste Natural - A gelatinous form of the WOCA Maintenance Oil designed specifically for UV oiled and waxed surfaces. This is used to remedy scratches in the floor, and do rejuvenation to the UV oiled surface as the user sees fit. Produced in a 400ml tube, coverage is 60-80m<sup>2</sup>/tube. Can be applied manually or mechanically.

WOCA Wood Cleaner - Used to clean and prepare the surface prior to Maintenance Paste application. Produced in 1L and 2.5L containers. Coverage is 200m<sup>2</sup>/litre.