

BEFORE LAYING THE FLOOR

- Only store Recycled Timber Innovations products in a well-ventilated position that is flat, not in direct contact with the ground and also protected from moisture and direct sunlight.
- Recycled Timber Innovations flooring products are normally supplied at 9% moisture content + or - 2%. Satisfy yourself that this range is appropriate for your intended application. If our product does not meet this moisture content range do not lay the flooring. If, for whatever reason, the flooring fails to live up to your expectations do not lay the floor and contact your supplier immediately.
- The flooring should be stripped out in the room in which it is to be laid and subjected to the same climatic conditions that it will experience after laying. That includes running of any heating or air conditioning for the usual time it would normally operate.
- Do not fix in extreme weather conditions, this will help the moisture control of the floor and reduce movement of the floor.
- Covering the flooring with plastic on site can cause an oven effect and should be avoided.
- Windows should be covered to prevent direct sunlight and heat from having direct contact with the flooring and causing shrinkage of timber.

While RECYCLED TIMBER INNOVATIONS FLOORING PRODUCTS can be installed in the direct stick method or installed over under floor heating RECYCLED TIMBER INNOVATIONS AUSTRALIA PTY LTD doesn't offer any warranty or guarantee on its flooring when installed this way. Please see your installer or satisfy yourself that it can be successfully installed this way before proceeding. A thorough understanding, and inspection of the specific site conditions needs to be undertaken by the installer prior to commencing work. Site specific circumstances such as proximity to water, coastal regions along with other climatic extremes may require more complex installations methods and maintenance. If applicable, under floor inspections should be carried out before installation. For more information visit our website:

www.recycledtimberinnovations.com.au



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Installer & Owners Responsibility.

Recycled Timber Innovations cannot be held responsible for site conditions. Prior to any installation commencing owners and installers must satisfy themselves that the environment they will be installing the flooring in will be "timber floor friendly".

That the sub-floor meets or exceeds the minimum specifications listed within these instructions. This includes moisture contents of the subfloor as well as levels and types of subfloors.

Standard trade practice allows for up to a 5% margin of error for natural feature and manufacturing defects. Recycled Timber Innovations flooring is inspected for quality before packaging and shipping, however it is recommended that prior to installation all flooring should be inspected on site for grade, colour, manufacturing quality and finishing of the top coat (if applicable) to ensure that the floor conforms to what was purchased. Ensure adequate lighting at time of inspection. Do further quality inspections as you continue the installation. The use of stain, filler or putty for the correction of minor defects during installation should be accepted as normal procedure.

Once a floorboard has been installed it is considered to have been of an acceptable quality. We cannot accept responsibility for flooring installed with visible defects. When ordering material, it is recommended to order an additional 3-7% depending on room layout to allow for cutting waste.

Installers are to ensure no part of the floor is attached to any surface and expansion gaps are included around all fixtures, and that perimeter beading is never fixed in to the flooring.

Do not store cartons directly on to concrete or in garage/shed. To better blend and balance the natural batch variation the installer should always work from several open cartons of product to create a balanced and natural visual for your new installation. Planning the install areas is a critical part of the project.

Do not open cartons prior to them being required for installation. Pre-finished floorboards require a little more time, care and precautions than unfinished flooring so please handle with care to avoid surface and profile damage. This flooring is a natural product and colour variations are to be expected. For best visual effect, shuffle planks from several cartons and do not install boards varying greatly in colour next to one another. Where possible cover windows 24 hours prior to install to moderate the interior temperature and to block excessive sunlight. The surface-temperature of the sub-floor at the time of installation should be at least 15°C but never exceed 27°C. For optimum performance the ideal relative humidity should be 45% to 55 % but never below 30% or consistently exceeding 60%. Ensure humidity and temperature levels are comfortable. Avoid installation during excessive weather conditions. Adhesive manufacturer's guidelines provide suitable reference for adhesive application use. **REMEMBER:** Check your floor continuously during installation. Installed defective boards can be easily replaced – no claims will be entertained for any surface or plank defects after installation. If in doubt leave it out ...or cut it out!



Visit www.atfa.com.au for endorsement criteria

**RECYCLED TIMBER
INNOVATIONS AUSTRALIA
ABN 96623449598**

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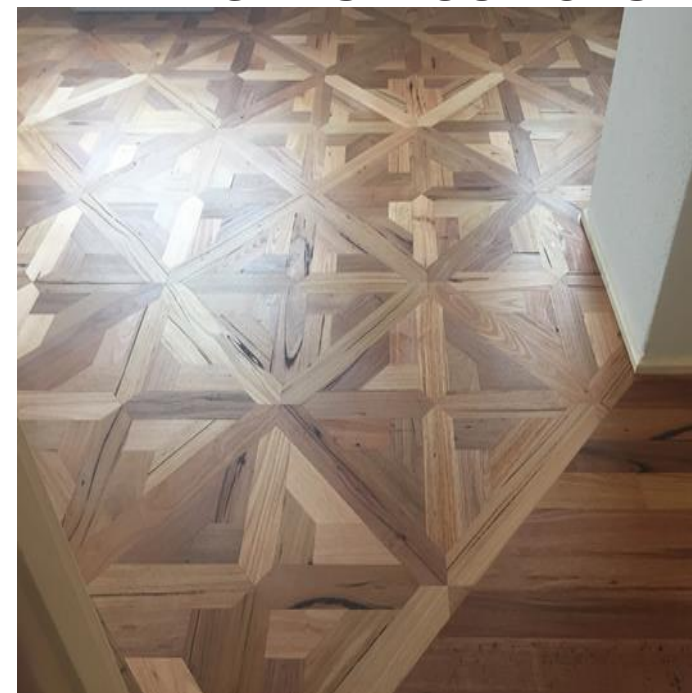
www.recycledtimberinnovations.com.au



Australia's most versatile Recycled, Re-milled, Repurposed, Reclaimed, Reused, flooring range

Engineered

LAYING INSTRUCTIONS



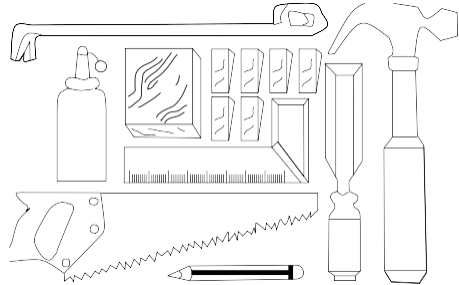
Important note; the project should be installed by a professional flooring contractor or highly skilled tradesperson. The installation process and method selected is the responsibility of the contractor and you must be satisfied that the contractor is qualified to carry out your site installation. All facets of the installation process need to be documented as this will be required if a warranty claim was to be made at a later stage. Only recommended industry practices should be used. Should you have any concerns prior to installation contact your retailer or visit www.atfa.com.au for more details.

OPEN CARTONS JUST PRIOR TO LAYING

Before laying the floor

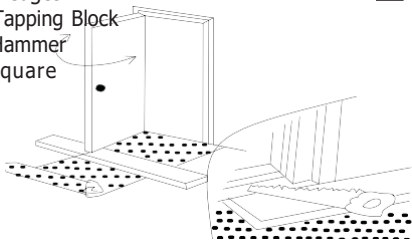
Please read all instructions carefully.
Improper installation may void warranty

TOOLS FOR THE JOB:



- A Saw or Jigsaw
- Miter Saw
- Pull Tool
- Floor Leveling Compound
- RECYCLED TIMBER INNOVATIONS Underlay
- Vacuum or broom
- Chalk line
- Tape Measure

- Wedges
- Tapping Block
- Hammer
- Square



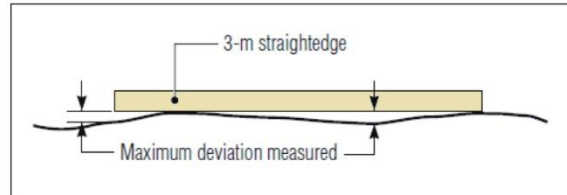
In the areas where the floor is to be laid, conditions must be the same as expected when the area is in use, and must have a humidity equivalent to the normal level for the season. The humidity should be stable and the difference between the highest and lowest measured relative humidity during the year should not exceed 20% RH (e.g. 45-65% relative humidity at approx. 20C). The moisture content of any concrete base should not exceed 5% or 65% relative humidity. The building must be dry and weather tight with all wet trades complete.

It is recommended that the boards be laid parallel with the longest side of the room. The heating and air conditioning system must be installed and tested, and during the heating season this should be operating with a constant heat supply. Flooring should not be installed where evaporative cooling is to be used. The packing on the bundles must not be removed until just prior to laying the floor. In the event of visible defects, the boards should not be installed and you should contact the supplier. Each plank should be carefully checked prior to installation: never install any damaged planks. **FAULTY PLANKS SHOULD NOT BE INSTALLED** and will not be covered by warranty provisions. A waste factor of approximately 3-7 % is required for length cutting, sorting and visual selection. If excessive product faults are detected, please contact the point of purchase immediately for advice.

Laying

1

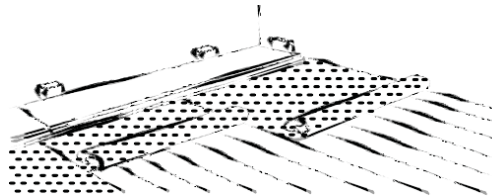
The Subfloor must be leveled to a tolerance of no more than a 3mm gap showing under a 3m straight edge the surface must be smooth with no roughness. (Figure 1.1) Local irregularities must be leveled using an approved leveling compound as per manufactures directions, or on level timber substrates.



2

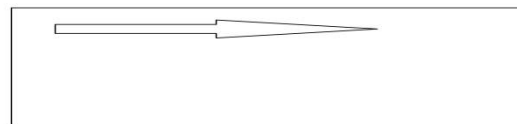
It is recommended to only use the Rubber or foam underlay with foil/plastic on the bottom with a minimum of 200 microns and all joints are required to be taped with water resistant tape. We suggest the under lay is laid in the opposite direction to the way the floorboards will be laid.

It is important that the plastic/underlay run up all walls a minimum of 50mm. This will prevent moisture ingress. If any concern exists over the thickness of the plastic on the underlay we recommend a further layer of 200 micron builders plastic is installed underneath and overlapped 200mm and taped.



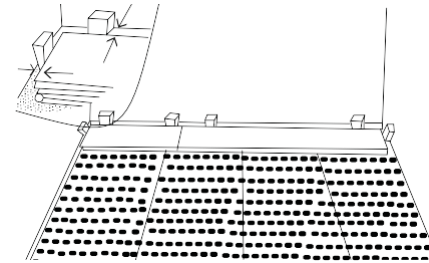
3

It is recommended that the boards be laid parallel with the longest side of the room.



4

The first row of boards is installed leaving a clear expansion gap at the wall of a minimum size of 15mm, or 3mm for every meter of floor width at each side. The tongue side of the board will need to be facing out to allow for the next boards groove to be locked in to place.



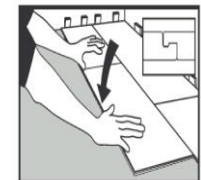
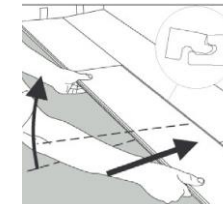
5

The second row can be started with the offcut from the last row ensuring that it is a minimum of 250mm away from adjoining end joins.

Insert the tongue at the side of the board in to the groove of the previous row at a 30 degree angle, press the board down applying slight pressure until it locks in to place.

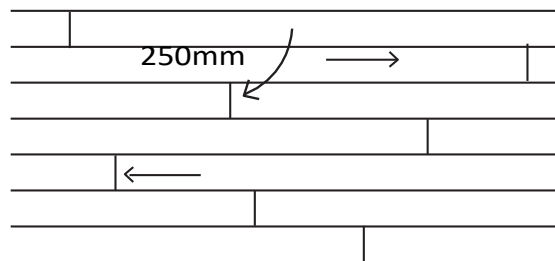
Continue doing this until the room is completed. If flooring doesn't lock in easily please inspect for damage to the profile and discard as required.

Ensure that when a room is completed and another room commenced that each room has an appropriate expansion to allow each room to move freely on all 4 sides.



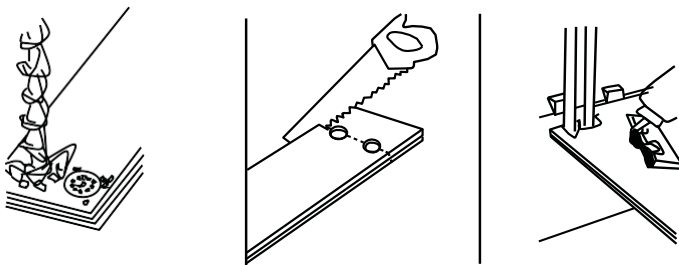
6

Ensure a 250mm spacing between end joins of boards.



7

Around pipes, drill a hole in the board to accommodate the pipe. The space around the pipe must be the same as the expansion gap at the wall. A tapered wedge is cut out, so that it can be glued in place.



Note:

Remove temporary spacers or wedge at walls before installing skirting or Scotia as it is extremely important that a minimum of 15mm expansion is always left. Please ensure that on widths across the boards that exceed 6 meter's that breaks are cut in to the flooring and a suitable capping is fitted to allow flooring to move and allow for seasonal weather and moisture variations

8

In some instances when fitting the last board adhesive may be required to be applied in to the tongue and groove.

9

After all the flooring has been installed it is important to spend the time and add the finishing touches. Remove all spacers/wedges from the perimeter. Fit skirting/beading around the perimeter ensuring not to fix through the flooring which can restrict future floor movement (nail them to the wall).
Install transition moulding, stair nosing's and reducers as required.



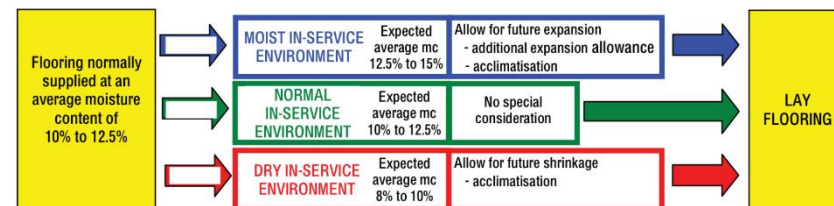
10

When installation is completed, Vacuum the floor thoroughly, spray a light mist of floor cleaner and mop using a micro fibre flooring mop to clean the floor.



Installation moisture content and acclimatisation

Acclimatisation of floorboards prior to installation is not necessary when the average supplied moisture content of the flooring is near the expected average in-service moisture content. Unnecessary acclimatisation can cause problems especially if the floorboards are acclimatised to a building site environment that is somewhat different from the expected in-service environment. This chart provides a guide as to when acclimatisation should be considered.



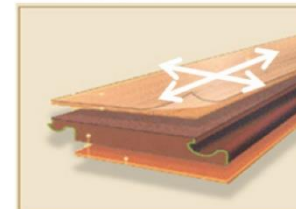
SOLID – 100:1



ENGINEERED – 5:1 and 1/10th of Solid



LAMINATE 1:1



Indicative ratios of width to length movement in different products



Laying on existing wooden & Concrete floors

The boards can be glued to a sub floor such as plywood, particle board & existing floorboards etc. The sub floor must be structurally sound, sufficiently rigid, flat, level and dry.

The sub floor must be level and sanded to remove all contaminants and irregularities. Boards must be laid to give a random joint pattern.

Expansion gaps at walls and other fixed points will be a minimum size of 15mm, or 3mm for every meter of floor width on each side and 1.0mm for every meter of floor length at each end with a minimum size of 15mm.

The timber subfloor must be dry and within 2% of the flooring that is about to be installed.

Sub floor requirements – in all cases, the sub floor must be structurally sound, level, dry and clean.

The concrete must be sound and have a steel trowel finish and be free of loose material.

The concrete must be clean, dry and free of dust, coatings, adhesives, oil & grease.

The slab must be flat with no more than 3mm deviation over 3 metres. If deviation is greater than acceptance then the laying surface can be brought to level using a self-levelling compound.

An alternative method is to fix 12mm plywood underlay to the concrete slab after first laying a polyethylene membrane overlapping 200mm on joins and securing with waterproof tape.

Recycled Timber Innovations flooring must not be laid on any section of concrete floor, which has a moisture content of more than 5%. The best way to test the moisture content is to use an appropriate moisture meter. We recommend the use of vapor protection barriers being applied as per manufactures directions.

We offer no direct warranty where it is installed using a "direct stick method" to concrete this will be covered under the adhesive manufactures warranty. Therefore follow their directions for trowel size and coverage rates.

Satisfy yourself that all relevant products you use in this system are compatible. **IF IN DOUBT STOP.** Do not proceed until you are satisfied the products that you have selected will perform the task you wish them to perform.

It is strongly recommended to set aside some boards to allow for future repair. Remember that all wooden floors react to humidity and moisture and that it is the owner and installers responsibility to install effective moisture barriers and to maintain correct moisture and humidity controls.

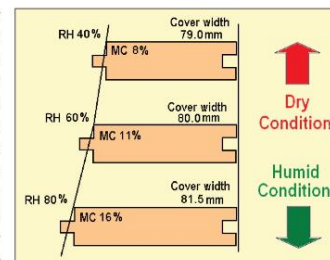
RECYCLED TIMBER INNOVATIONS floor boards are suitable for installation in residential and light commercial areas.

The table below highlights the best temperature and relative humidity levels to maximize the floorings performance.

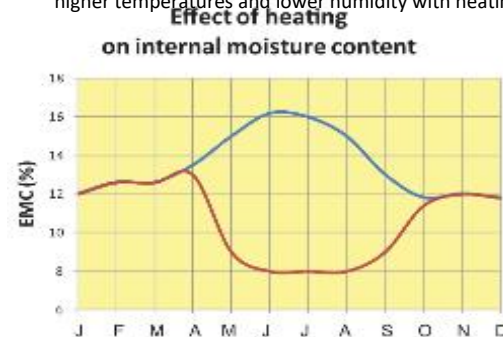
Temperature	Moisture content at various relative humidities																		
°C	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%
0	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3
10	1.4	2.6	3.6	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.3	11.2	12.3	13.4	14.8	16.4	18.4	20.9	24.3
20	1.3	2.5	3.6	4.5	5.4	6.2	7.0	7.7	8.5	9.3	10.1	11.0	12.0	13.1	14.5	16.0	18.0	20.5	23.9
30	1.2	2.4	3.4	4.3	5.2	6.0	6.7	7.5	8.2	9.0	9.8	10.6	11.6	12.7	14.0	15.5	17.5	20.0	23.4
40	1.1	2.2	3.2	4.1	5.0	5.7	6.4	7.1	7.9	8.6	9.4	10.2	11.1	12.2	13.4	15.0	16.8	19.3	22.7

Why shrinkage gaps occur

The diagram shows the relationship between the air relative humidity, board moisture content and board width. As conditions become drier due to lower air relative humidity, moisture is released from the boards, board moisture contents reduce and the boards shrink. This is a natural process. The consequences of this are that gaps will appear at board edges and greater shrinkage may occur at the exposed upper surface resulting in boards cupping. Temperature has two effects. Firstly, high temperatures within a house will lower the relative humidity making the air drier and secondly high floor temperatures make it easier for the moisture in timber flooring to be released to the air.



The blue line below shows outside conditions with lower temperatures and higher humidity over winter and the red line shows inside with higher temperatures and lower humidity with heating operating.



General Maintenance

Please ensure that an ideal room-climate with about 45-55% Air Humidity and 20°C is provided. This indoor climate is good for both your health and for the overall performance of the floor.

Direct sunlight can cause a chemical reaction in the wood and to the coating, this will result in the floor changing colour (weathering and ageing). It is advised in areas of direct sunlight to occasionally move floor rugs or carpets over the floor subjected to the light in order to protect the timber. Curtains & Blinds should be installed to protect your floor from direct sunlight.

Dirt & Grit lead to excessive wear and scratching of your timber floor. In order to protect the floor, dust and dirt must be kept off the floor. This can be achieved by using dirt trapping mats at all exterior doors to minimize the amount of dirt and grit being introduced to your inside floors. The floor should be vacuumed or swept regularly.

If the floor is dirty or has a build-up of grime it may be mopped with a slightly moist mop. The floor may be cleaned using a small quantity of methylated spirits or a mild flooring detergent mixed with warm water - this will assist in cleaning the floor.

You must not wet mop your timber floor as too much moisture will cause the moisture content of the boards to change and may cause cupping or buckling of the boards. Never use a steam mop.

Moving furniture over your floor can lead to surface damage. Fit protective pads to the legs of chairs and tables so they can be moved easily without the risk of scuffing the floor. High heel shoes can dent any hard floor surface. Special care should be taken to remove shoes that have exposed heels with sharp points to avoid damaging your floor. Pets with long claws can scratch and dull your floor finish, requiring extra maintenance or premature recoating. Your Engineered Timber Floor is a living material that will expand and contract in shape if moisture or humidity is raised. It may also shrink if moisture or humidity becomes very low. As a natural product damage from these circumstances may lead to irreversible deformation of the floor if the room climate and humidity is left too high or too low for an extended period of time. In winter months for example if the humidity (RH) in a heated room goes below the specified 45 % the floor may be subjected to conditions that may result in plank changes. In this case you should install an air humidifier to prevent damages to your floor. The same may also be necessary with air-conditioned rooms. Split systems can lead to lower relative humidity whilst Evaporative air-conditioners can lead to higher humidity.

Natural timber is also affected by UV light and therefore will change colour when exposed for long durations. Floor coverings such as rugs and mats should not be placed immediately after laying. The floor should be allowed to stabilize for a few weeks.

One of the features of Recycled Timber Innovations is that it can be recoated using water based polyurethane coatings (*please test and satisfy yourself with compatibility before proceeding*). If it becomes excessively damaged it is possible to re-sand and polish.

We recommend this is only done by a professional proficient in the sanding and refinishing of timber floors.