

INSTALLATION GUIDELINES

ENGINEERED
TIMBER FLOORS





www.harmonytimberfloors.com











INSTALLATION INSTRUCTIONS FOR YOUR HARMONY ENGINEERED TIMBER FLOORING

Harmony Flooring Installation Guidelines are to be read in conjuction with the recommendations outlined by The Australasian Timber Flooring Association.

The Australasian Timber Flooring Association | ATFA https://www.atfa.com.au

Step 1: PRE-INSTALLATION PROCEDURES

Please handle, transport, and unload the flooring with care. The flooring should be stored in a cool and dry place. Always store the flooring flat, not leaning up against the walls as it could cause the flooring to bow. The flooring should not be delivered to site until the building has been closed in with windows and doors, and until cement work, plastering, painting, and all other materials are thoroughly dry. If possible acclimatize the flooring for at least 48 hours prior to installation commencing. This is not always necessary and if you have any questions in this regard, please contact Harmony Timber Floors Pty Ltd. In addition, if required, the heating or cooling system should be operating and controlled at an optimal 40°–65° Relative Humidity for at least 48 hours before and during the installation process, as well as maintained after installation has been completed. Do not install the flooring in areas that are subject to extreme seasonal temperature changes, where you cannot control the temperature. Please note that when installing the flooring in areas that are subject large amounts of sunlight, that the windows are tinted or window furnishing installed and drawn at the time of the day when most exposed to sunlight. Failure to do so could result in UV fading of the floor and excessive expansion.

Step 2: MOISTURE TEST

Before installing the flooring over a concrete or a particle board subfloor, check the subfloor for moisture in several areas using an appropriate qualified commercial moisture meter. Prior to installation commencing it is critical to check the moisture content of the subfloor. For concrete slabs, the moisture reading of the subfloor should be around 2.5% or lower for an older concrete slab and no more than 3.9% for a new concrete slab. Check the subfloor for moisture in several areas using an appropriate qualified commercial moisture meter. If the moisture contents fall outside of this range, additional drying of the subfloor will be required. It is advisable that if the moisture content of the subfloor falls outside of the recommended ranges that the subfloor be sealed with an appropriate sealant. Please note that the sealants only act as a vapor barrier and not a moisture barrier or waterproofing membrane. The responsibility for checking the moisture contents of the subfloor lies with the installer and this information needs to be documented via marking the readings on the subfloor which are to be photographed and dated. A number of readings are required to be taken around varying locations on the subfloor. One or two readings will not suffice. If there are any areas of particular concern, then these need to be addressed before installation commences. It is to be noted that large cracks in the concrete slab will need to be address prior to installation commencing by the relevant qualified tradesman.

Step 3: SUBFLOOR PREPARATION

The preparation of the subfloor is a critical component in order to ensure a successful installation process.

The subfloor must be structurally sound, free of deflection or excessive movement, permanently dry, level, smooth, clean and free of any foreign contaminants such as paint, dust, dirt, grease, oil, old adhesive residue etc. Do not install the engineered timber flooring over any type of carpet.

The subfloor must be structurally sound and level to within 3mm over 3 lineal meters in any direction.

Movement and squeaks to the subfloor should be well fastened with ring nails or screws to the floor joists. With regards the levels, high spots must be sanded/ground flat and low spots filled with a leveling compound with a minimum compressive strength of 3000 psi or greater. It is important to follow the leveling compounds application instructions and ensure they are suitable for the application purposes.

When installing over timber flooring it may be necessary to install the engineered timber flooring in the opposite direction to the existing timber flooring and this is only applicable for the Glue-Down Method of Installation. It would also be advisable to install relief cuts to the existing timber flooring.

If areas are required to be built up in order to achieve a uniform finished height throughout, ensure that plywood sheeting is used. Install the plywood in a brick bond pattern with a 6mm expansion gap around the perimeters. Each plywood sheet must be adhered to the subfloor with construction adhesive and fixed to the subfloor with either screws when dealing with a particle board subfloor or construction anchors for concrete subfloors. The fixings will require a minimum 15mm grab into the particle board subfloor and 25mm into a concrete subfloor. Ensure that any height variance between the plywood sheeting does not exceed 0.75mm. Finally, ensure that the edges of the floorboards do not sit directly over the 6mm expansion gap between the plywood sheeting to avoid excessive movement on the edges, which could cause them to snap or creak.

Step 4: BEFORE INSTALLATION

Unpack 80% of the flooring that you will be installing on the day, sort out the floorboards into colours/shades and lengths where applicable. Prior to installation of the flooring, set it out by roughly placing the floorboards out in a manner that is pleasing to the eye, ensuring a random mix of colours/shades and lengths. Our quality control procedures at the factory ensure that very few, if any boards are defective when delivered to the consumer. However, it is important to remember that the installer should inspect each floorboard prior to installing them for potential defects, damage etc. which could occur through handling, human error, transport or manufacturing error. If any are found, these should be removed and returned to Harmony Timber Floors Pty Ltd to be exchanged or refunded if found to be defective. Alternatively these floorboards can be installed in areas such as underneath the dishwasher or fridge or in cupboards, where often these defects can be cut out. Please note if defective floorboards are installed without informing Harmony Timber Floors Pty Ltd of these defects, it is the installer's responsibility to remove and replace them. Warranty claims will not be accepted for defective flooring that has been installed. It is critical to check each floorboard prior to installation commencing for any defects.

Please note that not all jobs are the same and some consumers have specific requirements that they want meet. If the consumer has any specific questions they wish addressed, please feel free to contact Harmony Timber Floors Pty Ltd prior to installation commencing. Furthermore, if the consumer wants to install their flooring outside the parameters of Harmony Timber Floors Pty Ltd installation instructions, they need to consult Harmony Timber Floors Pty Ltd prior to installation

commencing and obtain clarification in order to ensure that all warranties are upheld. If the consumer fails to work within Harmony Timber Floors Pty Ltd installation instructions, this could have an impact on the warranties and failure to comply fully with them will result in the product warranty being null & void in part or in full.

Step 5: CHOOSING THE CORRECT INSTALLATION METHOD

FLOATING METHOD OF INSTALLATION

more cost effective, as long as the levels can be installed

 the ideal installation method for people who have trouble walking on harder surfaces due to arthritis etc. and provides better insulation.

are correct.

- quicker and easier to install and is ideally suited for the DIY market.
- perfect to install over existing flooring finishes such as vinyl, timber or tiles that the client does not wish to remove, noting that the existing floor finishes need to be stable.
- they can easily be removed should they get damaged.
- some degree of vertical movement of the flooring underfoot is to be expected, as the flooring has not been adhered to the subfloor. As a result, it can be common for a few floorboards installed to creak, squeak, click, etc. This is nothing to be concerned about and will not compromise the structural integrity of the flooring.
- tend to expand more than those installed via the Glue Down Method of Installation.
 As a result, over large expenses, expansion joints will need to be installed.
- for areas larger than 6 meters in width and length, the floor may need to be compartmentalized. Please contact Harmony Timber Floors Pty Ltd for clarification in this regard.

 can be installed directly over existing tiles as long as they are stable and is keyed up with a grinder to ensure that the adhesives adhere to the tiles.

GLUE DOWN METHOD OF INSTALLATION

- employing the Glue Down Method over existing timber flooring will need to be keyed up with a sanding machine and the newly installed engineered timber flooring installed in the opposite direction to the existing timber flooring (depending on the situation and age of the existing timber flooring. Never fit an engineered timber floor over another engineered timber floor that has been installed via the Floating Method of Installation. It is important to remove the existing engineered timber flooring first.
- quieter and more solid under foot than the Floating Method of Installation
- levels do not need to be as precise as for the Floating Method of Installation because adhesives can be used to rectify levels to a certain degree.
- if the levels are not precise, you are fixing the engineered timber flooring to the subfloor, thus eliminating the likelihood of vertical movement of the engineered timber floorboards. This is not to say that the levels are not to be checked or rectified should they full outside the scope of being able to be rectified with adhesives. It is ideal to work within the guidelines that the level are not out further than 3mm over 3 lineal meters

A: FLOATING METHOD OF INSTALLATION

Use 2mm or 3mm foam or rubber padded underlay. We advise using Harmony Silent Step, which is a high density acoustic underlay. Where multi-storey residences are concerned, please consult your Body Corporation in order to work within their requirements. There are a number of other underlays available on the market that can be used should higher acoustic readings be required. If any acoustic engineering reports are required, these are to be arranged and paid for by the unit owner. It is the responsibility of all unit owners to seek and obtain Body Corporate approval in writing prior to work commencing. It is important when installing the underlay that the joins are tight and if necessary taped together with duct tape or similar. Leaving gaps between the underlay, could cause the floorboards to move excessively, allowing gaps to open up between floorboards. Tight joins in the underlay will also assist in holding out any excess vapor present in the subfloor from affecting the floorboards and also ensure better sound insulation.

Prior to installation commencing it is critical to check the moisture content of the subfloor. For concrete slabs, the moisture reading of the subfloor should be around 2.5% for an older concrete slab and no more than 3.9% for a new concrete slab. Check the floor for moisture in several areas using an appropriate qualified commercial moisture meter. If the moisture contents fall outside of this range, additional drying of the subfloor will be required. It is advisable that if the moisture content of the subfloor falls outside of the recommended ranges that the subfloor be sealed with an appropriate sealant that is compatible with the adhesives to be used. Please note that the sealants only act as a vapor barrier and not a moisture barrier or waterproofing membrane.

When installing the flooring via the Floating Method of Installation, one must use a D3 PVA adhesive suitable for flooring. This is only of relevance to engineered timber flooring with a tongue and groove system, not a clip lock system. The D3 PVA adhesive must be placed on the upper top edge of the groove and applied to both the long and short side of the floorboards. This is done by turning the floorboard around with the veneer face pointing down, applying the D3 PVA adhesive to the groove, then turn the floorboard around and is ready to install. Use a tapping block if necessary to gently tap the boards into place. A tapping block can be made with a 150mm off-cut of the engineered timber flooring. Do not tap on the tongue or groove directly, as you will damage the floorboards. Be sure to remove all excess glue as quickly as possible, as once it dries it may be more difficult to remove. You can use a watered damp cloth when removing the D3 PVA adhesive. Note that it is critical to use sufficient D3 PVA adhesive, otherwise excessive movement or squeaking may arise between floorboards. Do not over apply D3 PVA adhesive as it could cause the floorboards to not fit tightly together, causing gapping to occur between floorboards and consequently causing the flooring to go off square. Finally, in order to ensure that any residual moisture in the subfloor is blocked out, the underlay must be installed tightly at the joints, with the overlapping foil lifted and adhered to the adhesive tape.

It is critical to leave expansion of 9mm around the perimeters of the flooring, depending on the size of the area. If possible, cut and remove the base of the Gyprock approximately 20mm up from the sub-floor in order to gain an extra 10mm expansion. For areas large than 6 meters in width and length, the floor may need to be compartmentalized. Please contact Harmony Timber Floors Pty Ltd for clarification in this regard.

When installing the flooring, it is critical that the butt joins are spaced out at least 25-30 cm apart.

For further hints and guidelines relating to the installation of flooring via the Floating Method of Installation, please feel free to visit the ATFA website at www.atfa.com.au.

B. GLUE DOWN METHOD OF INSTALLATION

METHOD 1: SNAKING OR "S" METHOD

This method is done by applying a continuous bead of adhesive on the back of the floorboards, with the bead of adhesive being no more than 70mm apart. An overall adhesive coverage of 70% is required. Where the levels are not perfect, a thicker bead of adhesive can be applied in order to take up any unevenness in the subfloor.

Once the adhesive has been applied to the back of the floorboards, it is then turned around and fixed to the subfloor, ensuring that it is firmly pressed down in order to ensure a strong adhesive bond to the subfloor.

It is critical that sufficient adhesive is used at all times, with a suggested overall adhesive coverage of 70%. When doing this, ensure that your floorboards are level to the adjoining floorboards at all times. If not make the necessary adjustments as required and avoid walking over these areas. Failure to do this could result in excessive drummy spots and squeaking of the floorboards. Please note a certain degree of drumminess can be expected. Be sure to clean up any adhesive on the surface immediately, as once it dries, it may be very difficult to remove. It is also critical to remove any of the adhesive form the surface of floorboards before it sets, as it can be extremely difficult to remove once it has set. Always follow the adhesive manufacturer guidelines and instructions for their adhesive warranty to be in effect. The adhesive to be used, are to be specific for timber flooring. We suggest using a flexible polyurethane adhesive. There are a number of other adhesives available on the market. It is however critical that these adhesive be flexible. Once again, always follow the adhesive manufacturer guidelines and instructions for their adhesive warranty to be in effect. Also follow the adhesive manufacturer guidelines and instructions in terms of removal of any residual adhesives left on the flooring.

Prior to installation commencing it is critical to check the moisture content of the subfloor. For concrete slabs, the moisture reading of the subfloor should be around 2.5% for an older concrete slab and no more than 3.9% for a new concrete slab. Check the floor for moisture in several areas using an appropriate qualified commercial moisture meter. If the moisture contents fall outside of this range, additional drying of the subfloor will be required. It is advisable that if the moisture content of the subfloor falls outside of the recommended ranges that the subfloor be sealed with an appropriate sealant that is compatible with the adhesives to be used. Please note that the sealants only act as a vapor barrier and not a moisture barrier or waterproofing membrane.

It is critical to leave expansion of 9mm around the perimeters of the flooring, depending on the size of the area. If possible, cut and remove the base of the Gyprock approximately 20mm up from the subfloor in order to gain an extra 10mm expansion. For areas large than 6 meters in width and length, the floor may need to be compartmentalized. Please contact Harmony Timber Floors Pty Ltd for clarification in this regard.

When installing the engineered timber flooring, it is critical that the butt joins are spaced out at least 25-30 cm apart.

For further hints and guidelines relating to the installation of engineered timber flooring via the Glue Down Method of Installation, please feel free to visit the ATFA website at www.atfa.com.au.

METHOD 2: TROWEL METHOD

The adhesive is applied to the subfloor in small quantities at a time, and spread with a 6mm notch trowel. The adhesive needs to be spread evenly in order to ensure a uniform coverage. When doing this, ensure that your floorboards are level to the adjoining floorboards at all times. If not make the necessary adjustments as required and avoid walking over these areas.

Prior to installation commencing it is critical to check the moisture content of the subfloor. For concrete slabs, the moisture reading of the subfloor should be around 2.5% for an older concrete slab and no more than 3.9% for a new concrete slab. Check the floor for moisture in several areas using an appropriate qualified commercial moisture meter. If the moisture contents fall outside of this range, additional drying of the subfloor will be required. It is advisable that if the moisture content of the subfloor falls outside of the recommended ranges that the subfloor be sealed with an appropriate sealant that is compatible with the adhesives to be used. Please note that the sealants only act as a vapor barrier and not a moisture barrier or waterproofing membrane.

It is critical to leave expansion of 9mm around the perimeters of the flooring, depending on the size of the area. If possible, cut and remove the base of the Gyprock approximately 20mm up from the sub-floor in order to gain an extra 10mm expansion. For areas large than 6 meters in width and length, the floor may need to be compartmentalized. Please contact Harmony Timber Floors Pty Ltd for clarification in this regard.

When installing the engineered timber flooring, it is critical that the butt joins are spaced out at least 25-30 cm apart.

For further hints and guidelines relating to the installation of engineered timber flooring via the Glue Down Method of Installation, please feel free to visit the ATFA website at www.atfa.com.au.

Step 6: INSTALLATION

Tools required include the following: Pencil, Tape Measure, Multi-Tool for undercutting the door jambs or alternatively a Handsaw, Utility Knife, Pull Bar, Hammer, Rubber Mallet, Rubber Tapping Block, Spacers/Wedges, Jigsaw, Drop Saw, Table Saw, Broom, Dust Pan, Vacuum and relevant Safety and Personal Protective Equipment (PPE).

Stage 1

Follow steps outlined in Step 1: Pre-Installation Procedures and check the moisture contents of the subfloor as discussed in Step 2 Moisture Test.

Proper temperature control needs to be in place during and after installation and can be achieved by circulating the air with fans, opening windows and doors, running air conditioners etc.

Stage 2

Install the recommended underlay if the Floating Method of Installation is being used. If the Glue Down Method of Installation is being used, seal the subfloor if required. Consult with Harmony Timber Floors Pty Ltd if you have any concerns in this regard. If required rectify the subfloor levels as outlined in Step 3: Subfloor Preparation.

Stage 3

Unpack the boxes as described in Step 4: Before Installation. Remove any skirting if applicable and undercut the door jambs with either a Multi-Tool or Handsaw, using an off cut of the flooring as a guide to achieve the correct heights.

Stage 4

Commence installation working by placing the groove against the walls in inserting Spacers/Wedges at the ends and edges where the flooring meets the walls. It is critical to leave expansion of a minimum of 9mm around the perimeters of the flooring, depending on the size of the area. If possible, cut and remove the base of the Gyprock approximately 20mm up from the subfloor in order to gain an extra 10mm expansion. For areas large than 6 meters in width and length, the floor may need to be compartmentalized. Please contact Harmony Timber Floors Pty Ltd for clarification in this regard.

Stage 5

Once the first floorboard has been installed and the Spaces/Wedges placed at the ends where the flooring meets the walls, lock the butt joints (short end of the floorboards) by inserting the tongue into the groove. Continue this procedure until you get to the end of the row. Cut the last floorboard with a Drop Saw. Use a Pull Bar and the Hammer to lock the final floorboard in position. Failure to close the gaps will compromise the locking system and cause the flooring to run off square. When tapping the short end of the floorboard, use a Rubber Tapping Block or off cut piece of the flooring, tapping on the edge of the floorboard. When tapping on the long end of the floorboard, you can use an off cut piece of the flooring, which you can lock into the adjoining floorboards and close any gaps that are present.

Once the first row has been installed use the leftover piece of the cut floorboard and start your next row with it ensuring that the spaces between the butt joins are at least 25-30 cm apart. Also ensure that the piece starting the row is not smaller than 30cm. If installing via the Floating Method of Installation, insert D3 PVA adhesive into the groove onto the top surface of the floorboard. This is of no relevance to flooring installed via the Glue Down Method of Installation or flooring that has a clip lock system. When installing flooring with a clip lock system the floorboards will need to be installed by placing the tongue at an angle and dropping into place. Lock the long edge of the floorboard by inserting the tongue into the groove.

These procedures are then replicated throughout the installation process. When cutting around built-in cabinetry or fitting the floorboards underneath the door jambs, use a Jigsaw to make the cuts, ensuring the relevant expansion has been left at all times.

Stage 6

Fix the skirtings to the walls, not to the flooring. If you chose to leave the skirting in place, fit a molding to the skirting, not the flooring to cover the expansion. Against any built-in cabinetry, fit a molding to cover the expansion. Install transition strips against the tiles, carpet, windows and sliding doors etc. ensuring that the floorboards are not adhered to the subfloor if the Floating Method of Installation is being used. Use a flexible adhesive or a clear silicone to fix the transition trims. Please discuss the different transition strips with your supplier so they are able to advise you of the best choices in this regard.

Stage 7

On completion of the installation process, sweep up large pieces of debris and dispose of in a responsible manner. Vacuum the remaining debris up, ensuring that the brushes our out on the vacuum head.

For further hints and guidelines please feel free to visit the ATFA website at www.atfa.com.au.

NOTES: Care needs to be exercised when installing the flooring and Harmony Timber Floors Pty Ltd Installation Instructions need to be followed in order to ensure a successful outcome. If the flooring is installed in accordance with Harmony Timber Floors Pty Ltd Installation Instructions, the consumer will have many years of satisfaction from their flooring. It is important to check the credentials of your installer and where possible use a licensed installer. Please note that the above instructions are to adhere to for warranty purposes. Should issues arise relating to the installation process, Harmony Timber Floors Pty Ltd cannot be held accountable, unless Harmony Timber Floors Pty Ltd was contracted to carry out the installation.

Bending or bowed floorboards in length direction are not a defect. The floorboards might be a little harder to install, but will not be a problem once installed, or in the future. They will sit flat with the balance of the floorboards.

Colour variations will occur between engineered timber floorboards as one is dealing with a natural product. Australian species of timber, in particular Spotted Gum and to a lesser extent Blackbutt are renowned for having a lots of colour variation. The same is applicable to the presence of knots, gum veins, natural imperfections such as insect boring marks and trails etc. as one is dealing with a natural product. When installing the engineered timber flooring careful positioning of the floorboards is advised.

It is normal for flooring to expand and contract seasonally. During the summer gaps between the floorboards may close up and in winter gaps between the floorboards may appear. This is perfectly normal and not a defect. Furthermore, to reduce this from happening, it is advisable to control the Relative Humidity within the environment where the flooring has been installed between $40^{\circ}-65^{\circ}$ year round. It is critical to maintain the Relative Humidity at 40-65% at all times, as the Australian climate is extreme and when there is high humidity or excessive moisture in the air, issues such as telegraphing or peaking joints could arise and they would not be covered by warranty. In order to control the Relative Humidity in your home it is advisable to purchase a hygrometer and control the Relative Humidity in your home with air conditioning, fans, ventilation etc.

All flooring will scratch and dent, depending on individual living conditions. Certain species of flooring are harder than others. With regards the engineered timber flooring feel free to look up the species Janka Rating.

Please refer to the Care and Maintenance Instructions to understand how to look after your flooring in the correct manner.

SAFETY AND PERSONAL PROTECTIVE EQUIPMENT (PPE)

- When installing any products supplied by Harmony Timber Floors Pty Ltd, the installer is to wear the
 relevant PPE, which includes Ear Muffs, Eye Protection, Gloves and a Respirator Mask with a filtration
 system that is conform to Australian Standards. It is recommended to get any Respirator Masks
 properly fit tested. This is of particular relevance when cutting the flooring. This is the responsibility of
 the installer to ensure this is followed at all times.
- When installing any products supplied by Harmony Timber Floors Pty Ltd on constructions sites, the installer is to wear the above recommended PPE and any other PPE required in accordance with the construction site guidelines, such as Steel Caps, Visibility Vests, Long Sleeve Shirts, Long Pants, Hard Hats etc. This is the responsibility of the installer to ensure this is followed at all times.
- When cutting any products supplied by Harmony Timber Floors Pty Ltd, the installer is required to
 attach a vacuum to the equipment in order to reduce the spread of dust. This is the responsibility of
 the installer to ensure this is followed at all times.
- When working with any adhesives, solvents, chemicals etc. it is essential that the installer refer to the Safety Work Method Statements (SWMS) and Data Sheets provided by the companies manufacturing these products before using them, in order to ensure that the correct guidelines are followed when in use. This is the responsibility of the installer to ensure this is followed at all times.
- When using power tools, it is essential that the installer consults the manufacturers' guidelines before using the power tools in order to ensure they are using them correctly and for their intended purposes, thus avoid risk of injury. This is the responsibility of the installer to ensure this is followed at all times.

HANDY INSTALLATION TIPS

- Read the instruction first Before commencing the installation process, read the manufacturers' instructions and guidelines for all products to be used first and consult your supplier if you are uncertain of anything. Our Installation Guidelines can be found on our website at www.harmonytimberfloors.com.
- **Direction of the flooring** Usually you will want to orientate the floorboards in the direction of the major source of incoming light, so that light is shining down the length of the floorboards, or install the floorboards with the length of the room. Sometimes these to situations do not work in unison, in which case the consumer will need to take into account things like expansion or the overall look they want to achieve.
- **Skirting** A far more professional outcome is achieved when the skirting is remove prior to installation commencing and reinstalled on completion of the installation process. It is also highly recommended to undercut the architraves unless they are steel architraves that are structural. Where a client does not wish to remove the skirting, a molding or scotia can be fixed to the skirting. Never nail the timber beading or scotia to the flooring as this could cause expansion issues. When fixing the skirting or kickers etc. it is extremely important not to push hard down on the skirting. Gently sit the skirting or kickers on top of the flooring and fix to the walls. Failure to do this could cause expansion issues and the flooring may not be covered by the manufacture warranty. Furthermore, by using an 18mm skirting as opposed to an 11mm skirting will gain extra expansion and possibly reduce the need for expansion joints. It is also advisable to undercut the Gyprock where possible in order to gain an extra 10mm expansion.
- Moisture Take the environment in which you will be installing the flooring into account prior to
 installation. If you are aware of any moisture issues, get these rectified prior to installation
 commencing. Furthermore, check the moisture contents of the subfloor prior to installation
 commencing.

- **Silicone** Do not apply silicone the base of the skirting or around any built-in cabinetry if the Floating Method of Installation is used as there is a strong probability that when the flooring expands, the silicone bead will break. In fact the silicone bead could actually cause an expansion issue; hence silicone work is not permitted for the Floating Method of Installation. If carried out this will affect all warranties for the engineered timber flooring. Silicone work to the base of skirting and around built-in cabinetry is permissible for those engineered timber floors installed via the Glue Down Method of Installation. However, please note that the silicone must not be placed in the expansion gap and furthermore there is a possibility that the silicone bead could break when the engineered timber flooring expands and contracts.
- **Expansion** If something goes wrong with the flooring, it is usually related to expansion. Leaving sufficient expansion is critical at ensuring that you do not have any issues with the flooring. Please refer to the above Step 6: Installation for expansion requirements.
- Creating a random look as opposed to a pattern To avoid creating a joint pattern in the flooring, it is necessary to begin installation using starter boards. To create a starter floorboard, cut the floorboard at 2/3 the length. Start with the 2/3 length, and then install the full lengths and continue across the room. Use the 1/3 length to start the next row and continue as above keeping at least a 25-30cm distance between the end joints. Cuts made at the opposite wall should be used for starter floorboards. A starter floorboard should be a minimum 30cm long. If you wish to introduce a pattern then the strongest and most stable pattern is a running brick bond pattern.
- **Clamping** Blue masking tape, available from most hardware stores, is ideal to hold the engineered timber floorboards in position until the adhesives set, as opposed to the clamping of the engineered timber floorboards, which is seldom required. Making the joins over tight by clamping them is not permissible.
- **Fixing of transition strips** These need to be fixed with a flexible adhesive or clear silicone and where possible fixed to the actual sliding doors, windows etc. and not the flooring itself. Ensure surfaces are clean prior to applying the flexible adhesive or clear silicone in order to ensure proper adhesion.
- Installing the flooring over existing floor finishes Check that the subfloor is stable and level. Flooring cannot be installed over existing carpet, which will need to be removed first. Please note when installing the flooring over tiles, it is important to note that the tiles need to be securely adhered to the subfloor, but this is not a guarantee that this bond will not break further down the track. As a result caution needs to be taken when installing flooring over existing tiles. The same is applicable for linoleum or existing vinyl flooring. Also when installing engineered timber flooring over existing tiles, the size of the grout lines needs to be considered. If the grout lines are too big, then this could cause excessive movement underfoot and the locks could unclip or break. Please refer to Step 3: Subfloor Preparation.

When installing engineered timber flooring over tiles via the Glue Down Method of Installation, it is important to assess the structural stability of the tiles first and to key them up in order to ensure the adhesives adhere properly. The same applies when installing over existing timber flooring via the Glue-Down Method of Installation. The existing timber flooring will need to be keyed up with a sanding machine and the newly installed engineered timber flooring installed in the opposite direction (depending on the situation and age of the existing timber flooring) to the existing timber flooring. It would also be advisable to install relief cuts to the existing timber flooring. Never fit an engineered timber floor over another engineered timber floor that has been installed via the Floating Method of Installation. It is important to remove the existing engineered timber flooring first. Never use the Glue Down Method of Installation over existing linoleum or existing vinyl flooring. Also always make sure there is no asbestos present in any of the existing floor finishes before removing them. If uncertain send a piece of the existing floor finish away for testing.

- **Under floor heating** Under floor heating is permissible, however the temperature cannot exceed 28 degrees Celsius at any given time.
- **Waste Factor** A waste factor of 10% needs to be allowed for, whilst a 15% waste factor needs to be allowed for when a large amount of angles and curves are involved. Parquetry flooring has an even higher waste factor of 15-20%.

- Recommended areas of installation The flooring can be installed in all areas, excluding wet
 areas such as bathrooms, laundries, wet rooms, outdoors and areas exposed to excessive amounts
 of direct sunlight (refer to our Care and Maintenance Instructions). Residential kitchens are not
 classified as wet areas. If installed in the above mentioned areas, it may void the manufacturer
 warranty. Please feel free to contact Harmony Timber Floors Pty Ltd prior to installation commencing
 if you have any questions in this regard.
- **Fixing items directly to the flooring** Fixing items directly to the flooring will cause expansion issues and is not recommended. This includes the fixing of track, built-in cabinetry etc. by screwing them or adhering them with non-flexible adhesives directly on top of the flooring. This is particularly relevant to the Floating Method of Installation. The same is applicable when placing extremely heavy items directly on top of the flooring such as built-in cabinetry, a baby grand piano, heavy bookcases, a billiard table etc. Once again this is of particular relevance to the Floating Method of Installation. If carried out this could affect all warranties for the engineered timber flooring.
- Install the flooring after the other tradesmen have completed their scope of works, to prevent potentially damage the flooring.
- Adhesives stuck to the surface of the engineered timber flooring Adhesives adhered to the
 surface to the engineered timber flooring can be removed with Methylated Spirits. Consult Harmony
 Timber Floors Pty Ltd first, as some engineered timber flooring surface finishes may differ.
 Furthermore, depending on the adhesives used, will depend on what can be used to remove
 adhesives adhered to the surface of the engineered timber flooring. Refer to the adhesive
 manufacturers guidelines with regards the cleaning requirements. If this is not done it could impact
 on the engineered timber floors warranty.
- Purchasing of spare flooring It is strongly advised that the consumer purchase at least a spare
 box of the flooring that they have purchase, in case any future repairs are required. Harmony
 Timber Floors Pty Ltd regularly change their profiling, dimensions and colours of their flooring etc. to
 meet the needs of the market. Hence we cannot be expected to have stock of old flooring on hand
 for long periods of time. If a warranty repair is required and the original materials are not available,
 then the repairs will be carried out using similar flooring.

These installation instructions are part of the Harmony Timber Floors Installation Instructions and failure to comply fully with them will result in the product warranty being null & void in part or in full.

For those timber floors installed by Harmony Timber Floors Pty Ltd, the warranty of the installation of timber flooring installed via the Floating Method of Installation is valid for a period of 1 year from the date of completion of the works. For timber flooring installed by Harmony Timber Floors Pty Ltd via the Glue Down Method of Installation, the warranty period for installation is in accordance with those outlined by the QBCC and NSW Building Codes from the date of completion of the works.

Please refer to the Harmony Timber Floors Care and Maintenance Instructions and the Australasian Timber Flooring Association website at www.atfa.com.au, on how to maintain the correct climatic conditions within your home/interior space during the various seasons of the year and extreme weather events in order to avoid any potential expansion issues, shrinkage, cupping, crowning, telegraphing, peaking of joints, checking/light surface cracking etc. It is important to maintain Relative Humidity at 40-65% at all times. Proper temperature control needs to be in place during and after installation and can be achieved by circulating the air with fans, opening windows and doors, running air conditioners etc.

If you have any questions or concerns, please feel free to visit our website at www.harmonytimberfloors.com or calls us on 1300 725 257.

Please also visit the Australasian Timber Flooring Association website at www.atfa.com.au for further information on installation instructions for your flooring to be read in conjunction with our Installation Instructions.