



INSTALLATION GUIDELINES
wood floors

INSTALLATION GUIDELINES - WOOD FLOORS

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GENERAL INFORMATION PRIOR TO INSTALLATION

WHAT KIND OF INSTALLATION SHOULD YOU USE?

Floating Installations

Using the floating method of installation will require the pre-laying of an underlay in order to provide a cushion between the floor and the subfloor. Use one that combines a built in DPM on ground and basement levels or above concrete sub-floors and an acoustic option in multi occupant buildings to provide sound reduction between floors. This method will only lend itself to engineered boards although wide engineered planks are not recommended to be used for this method.

Once the underlay has been fitted, the installers should start laying the planks on one end of the room and leave a 1/2inch gap around the entire perimeter to allow for expansion. In this method no nails are used and the board's ether connects using a click system or the tongue and grooves are glued together. The only downside with floating floors is that they are more likely to "creak" and the PVA glue that is commonly used can break down over the years, and the joints work loose.

Glue-Down Installations

Glue-down installation requires the use of an adhesives or bonding agent applied directly onto the subfloor. It can be used on both concrete and wooden subfloors. Some of these adhesives are designed with under floor heating in mind and can be used for both solid and engineered floors. Laying over a concrete subfloor will first require a two part epoxy liquid Damp Proof Membrane (DPM) to ensure no damp rises into the new floor.

The Glue-down installation method can provide an extremely stable floor when done properly, although it will require a slightly longer overall installation process. As with other installation methods, the installers should leave an expansion gap around the perimeter and follow the same laying pattern. This method can be used for wide planks although it is mostly common for parquet flooring.

Nail-Down Installation

Nail-down installation is the most straightforward installation methods, and is only advised if you have a wood subfloor. This installation method is typically performed by a professional as it requires certain skill and level of knowledge as well as the use of specialist tools, therefore not recommended for the Do-It-Yourself (DIY) enthusiasts.

When installing over plywood or composite board the direction chosen to lay the planks does not matter; however, if the new flooring is nailed down over existing floorboards, the new planks must be installed at a 90° angle to the original floorboards. This is done to ensure stability and to avoid the risk of excessive movement, buckling or warping.

Commonly used with tongued boards, the installers should start at one end of the room and leave a ½ inch gap around the entire perimeter to allow for expansion.



They should carefully select several of the straightest boards and once they have been nailed in place, go back and nail the same boards through the tongue, pre-drilling and nailing at a 45° angle. After the third row or so is in place a manual or pneumatic floor-nailer can be used.

The floor nail or cleat used should be ring-shanked or jagged and no less than 2.5 times the thickness of the boards. They should be set into each floor joist or batten, assuming 16 inch spacing and an additional nail between each set. This should result in a spacing of every 8" to 10" as recommended by the National Wood Flooring Association (NWFA). Boards must have a minimum of two nails each. No two connecting boards should end on the same line so the installer should alter lengths, to stagger joints 6 inch apart. Often the last row will not fit a full strip of flooring and should be cut so the installer is able to hand nail the last row, leaving enough space for a ½ inch expansion gap between the wall and the wood. For better aesthetics the installers should run the boards through the doorway and continue into the adjacent room, although it may not be possible in all property types or room layouts.

SUBFLOOR TYPES

Subfloor is the structure on which your new wood flooring will be installed. Subfloors vary depending on age and type of property, they can be a concrete foundation of the property, or they can be floorboards, plywood or particleboard laid over the floor joists. Assessing the type and condition of the existing subfloor is extremely important when it comes to laying your new flooring as the decision on which type of floor you can install and the method of installation to be used will depend on the type of subfloor you have.

Some common subfloor types are:

Concrete or cement

A mix of cement, fine aggregates and water that hardens after mixing. In period properties it may be located on the lower or ground floors of the existing structure or extension, usually added at a later date due to modern building practices. In more modern buildings it may be located on all floor levels and in some cases it is covered with floorboards.

Plywood

Panel sheeting made of three or more thin layers of wood bonded together using glue. The layers have alternating grain directions to add strength. This subfloor is usually installed over timber joists.

Particleboard

Panel sheeting made from wood particles (wood chips, sawmill shavings, saw dust) bonded together under pressure. Particleboard has a higher density than chipboard, and is a cheaper and less durable alternative to solid wood or plywood subfloors. As with plywood, this subfloor is usually installed over timber joists.

Floorboards – The traditional softwood flooring, constructed usually from long planks of Pine. Traditionally the planks were square edged, although these days it is common to use a tongue & grooved structure instead.

Before installing any new wood flooring, it is important that you remove all old floor covering and get down to a flat, solid and dry subfloor. Old floor covering, like Carpets, Laminate, Vinyl or other existing flooring types are not suitable as a subfloor for wood flooring, and must be removed. The table below contains some information on subfloors, flooring types and installation methods you can use:

Subfloors	Flooring Type	Installation Method
Concrete	Solid	Nailed on joists, Glue-Down
	Engineered	Floating on underlay, Glue-Down
Plywood, T&G Floorboards	Solid	Nail-Down, Glue-Down
	Engineered	Floating on underlay, Glue-Down, Nail-Down
Particle Board	Solid	Glue-Down
	Engineered	Floating on underlay, Glue-Down

UNDEFLOOR HEATING

When installing wood flooring over an Underfloor Heating System, installers/specifiers should consider the wide ranging temperatures which will influence movement. During the summer months the timber will expand whereas during the winter, when the heating is switched on, the timber will shrink.

Only wood flooring specifically approved for use over radiant heat should be used, this may be approved engineered boards or some types of solid overlay. Installing flooring which is not approved over a radiant heat source will void any product warranty and may result in damage to the floor. It is also vital to understand that the surface temperature of the new timber floor should not exceed 27°C (81°F); otherwise excessive gapping between boards and/or cracking of the top layer may occur. For wider hardwood boards, which are more susceptible to changes in moisture, a maximum surface temperature of between 22° - 24°C (72° - 75°F) would be appropriate.

Its is usually sufficient to provide a comfortable environment in newly built properties with adequate insulation and is generally brought about, in water feed systems, by a water circulation temperature of 35° - 45°C (95° - 113°F) or, in Electric systems, with temperatures equates to an average power output of approximately 100W/m². It is important to note that the exact heat output will vary according to the thermal conductivity and resistance of the system and floor covering used (species, thickness etc) therefore it is important that a dedicated thermostat is installed at floor surface level to allow the temperature to be accurately controlled.

Unless otherwise advised by the Underfloor heating manufacturer, pipes and cabling must be evenly laid-out. Water pipes are usually spaced at no more than 300mm centres and Electric matting should be laid evenly, on a levelled subfloor, throughout the floor area in order to avoid local 'hotspots'. When underfloor heating systems are installed at ground or basement floor level (lowest level of property), the heating elements are usually covered beneath a screed and the recommended depth of the screed may vary between 30mm and 75mm, while deeper screeds will aid in heat dissipation and will help prevent local hotspots from occurring.



Allow the screed sufficient time to fully dry and ensure that the equilibrium relative humidity is certainly no more than 75%RH but ideally no greater than 65%RH. Screed and room moisture levels should be recorded in the Heat-Up Protocol Documentation prior to timber installation.

Once the heating system is installed, and before any wood flooring is laid, the heating system should be turned on gradually in maximum 5°C (41°F) increments a day and should be run at half to two-thirds its maximum power for two weeks, followed by maximum power for 2 - 7 days prior to installation of the flooring. The room should be ventilated briefly every day during this period.

The underfloor heating is generally switched off when laying the floor in order to prevent moisture being driven to the underside of the boards. Whilst this is not strictly necessary in the case of nailed or floating system, it is especially true when stick-down systems are installed. After the floor has been installed, the heating should be turned back on very gradually over a period of several days. Sudden changes in temperature such as testing period should be avoided as this can 'shock' the timber and cause rapid irreversible setting of the wood.

It is not advisable to cover the timber floor with insulating materials like protective sheeting, carpets or rugs when the heating is operational as it may create local 'hotspots' and compromise the timber, glue and/or finish.

MOISTURE AND HUMIDITY

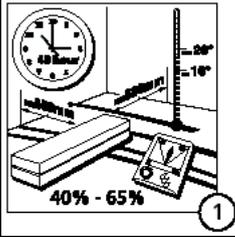
Moisture conditions, temperature and humidity levels play an important part in the life of natural wood flooring. Although the installation process requires skill and precision, the success of an installation is in many ways reliant on the acclimatisation and moisture conditions during and after installation. As environmental conditions greatly affect the behaviour of natural wood floors, temperature and humidity should be controlled, before, during and after the installation process to avert potential disaster.

The main responsibility of the installer prior to installation is making sure the moisture levels within the sub-floor are low enough to lay the floor. Where concrete or other cementitious slabs are present, mainly in ground/basement levels, the installers should take a hygrometer reading to see if conditions are suitable and no damp is present. BS8201 recommends an equilibrium reading of no greater than 75%RH although this is recommended as an upper level and in practice a better equilibrium reading in the region of 65%RH should be used. The 75% Relative Humidity guidance provided in BS8201 is equivalent to a moisture content of between 4% and 5%.

In addition to checking the moisture, in ground/basement levels the installer should check to see if a Damp Proof Membrane (DPM) exists and if not or if it has been compromised the fitter may be required to do so before moving on to the floor installation

INTRODUCTION TO INSTALLATION

GENERAL ASPECTS:



Storage and Acclimitisation Period

ALL FLOORING MUST BE STORED IN THE CORRECT CONDITIONS PRIOR TO INSTALLATION. The product must not be stored on site until the site is watertight and all subfloors, plastering, cement work, decorating and all other wet works (i.e. plaster, paint, tiling etc.) are completely dry and finished. The product must be stored horizontally on a flat surface in its original packing, no more than 2 - 3 packs high and wide. Stacked packs should be separated with battens to increase air recirculation. The product should not be stored next to a radiator.

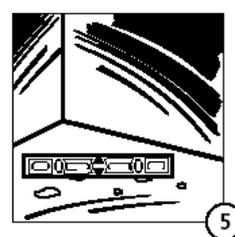
We strongly recommend keeping record of moisture and humidity conditions on site prior to installation. These measurements will be required by us and/or the manufacturer if there are any future problems. A form has been provided at the end of this guide to assist with this task.

Solid wood must be allowed to acclimatise for at least 10 days prior to the installation, whereas most engineered boards can be installed within a couple of days after delivery. Once delivered, the product must be stored according to our guidelines until the installation date.

General Site Conditions

Moisture conditions, temperature and humidity levels play an important part in the life of natural wood flooring. Although the installation process requires skill and precision, the success of an installation is in many ways reliant on the acclimatisation and moisture conditions during and after installation. As environmental conditions greatly affect the behaviour of natural wood floors, temperature and humidity should be controlled, before, during and after the installation process to avert potential disaster.

Prior to installation it is the installers responsibility to ensure that all internal site conditions are stable and suitable for the installation of the agreed flooring. Room temperature of between 18° - 22°C (65° - 73°F) and Relative Humidity of between 45 - 65% must be maintained at all times. Failure to maintain these conditions could cause ongoing behavioural problems with the product and invalidate any warranty.



Subfloor Preparation

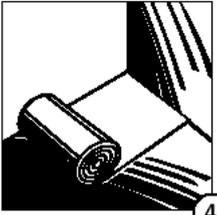
Preparation of the subfloors will depend on the condition of the existing structure and chosen method of floor installation (described in the following sections). Before any installation takes place it is essential to determine the condition and moisture content of the subfloors.

Subfloor level should have no more than 3mm deviation when measuring over a 2 metre distance. The subfloor must conform to BS 8204: Part 1 1987, which states that it must not deviate by more than +/- 3mm under a 3mm straight edge in any one direction. Failure to keep to these tolerances may result in the floor squeaking or deflection of the floor in service. (See figure 5)

Subfloors must also be vacuum clean, smooth and free of any debris, staples, visible nails, old adhesives, or other dried substances before installation.

Timber Subfloors

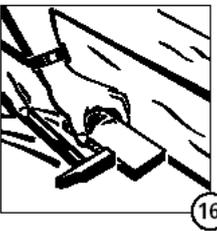
Wooden subfloors usually consist of pine floorboards or wood panel sheeting like plywood, chipboard, etc. laid over joists or battens as a suspended floor. Prior to any installation the installer should check to see if the materials used are adequate and there is no water, moisture or rot present. A hygrometer reading should be used to see if the conditions are suitable and no damp is present. If the floor is on or below ground level the installer should also make sure there is adequate ventilation beneath and between the joists and air bricks are present and not blocked.



In the event that the timber subfloor is not fit for purpose or the work involves the construction of a new subfloor, the installer should use a minimum of 18mm thick External Grade Plywood or OSB Boards direct on the joists. If the existing subfloor is adequate but not level, for example old uneven pine floorboards, a 12mm minimum External Grade Plywood or OSB Board can be glued directly on to the existing subfloor. Where new sheeting is installed over an existing subfloor, any loose floorboards or boarding should be screwed down using long enough screws to penetrate and hold into the joists.

Concrete Subfloors

The main responsibility of the installer prior to installation is making sure the moisture levels within the subfloor are low enough to lay the floor. Where concrete or other cementitious slabs are present, mainly in ground/basement levels, the installers should take a hygrometer reading to see if conditions are suitable and no damp is present. Screed or concrete subfloors must have under 4% moisture content. Failure to maintain these conditions could cause excessive dimensional change resulting in problems like delaminating, cupping, cracking etc. (See figure 4)



To tighten the installation you can use a wooden fillet block of at least 30 cm (See figure 16), In order to avoid damage to the floor panels. After the panels have been tightened remove any residual glue immediately with a moist cloth. After the glue has dried, it will be almost impossible to remove any residue (See figure 17)

In addition to checking the moisture, in ground/basement levels the installer should check to see if a Damp Proof Membrane (DPM) exists and if not or if it has been compromised it is important that a new DPM is fitted before moving on to installing the floor.

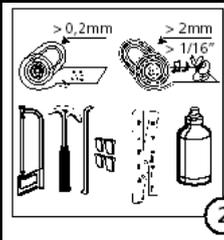
Heating Systems

If an Underfloor Heating System (UFH) exists or is to be installed, whether electric or water-fed, some additional checks and processes will be required from the UFH installer - pre, during and post installation.



IT IS IMPORTANT THAT THE OWNERS AND/OR INSTALLERS INFORM US OF THE EXISTANCE OF AN UNDERFLOOR HEATING SYSTEM. THIS MUST BE DONE DURING THE ORDER PROCESS AND BEFORE WORK HAS STARTED.

As with UFH, water-fed radiator systems can provide excessive heat at subfloor level if pipes are running close to the subfloor or are not insulated. It is important to prevent the temperature at subfloor level from exceeding 27°C (81°F) and insulating or distancing pipes from the subfloor level may be required. This will help avoid hotspots at floor level, which may compromise the structure, glue and/or finish of the new timber floor.



prefer to avoid any disruption to the existing boards/walls, the gap could be covered with hardwood beading (i.e. Scotia , Quadrant) or filled with cork.

Expansion

All wooden floors will react to changes in the presence of moisture. In the summer months when the humidity is higher the planks will expand, while during the winter months when central heating is present, moisture is reduced within the planks causing them to shrink. This natural process needs to be taken into account by ensuring that the floor is fully acclimatised, and when installing the floor, an expansion gap of 6-10mm (about 1/2 Inch) should be left around the perimeter.

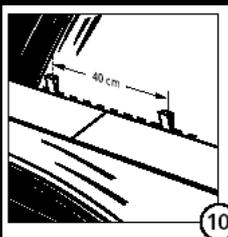


There are several methods of covering the expansion gap once the floor has been installed, depending on the existing site/room and personal preferences or budgetary constraints. Where skirting boards exist, the installers can either remove prior to installation then reinstall above the new flooring or alternatively, the skirting boards can be bottom-trimmed to allow for the new floor to slide underneath. Where skirting boards do not exist, or owners

IT IS THE DUTY OF THE INSTALLER/OWNER TO JUDGE THE SUITABILITY OF ANY PIECE FOR PLACEMENT IN A CONSPICUOUS AREA OF A ROOM

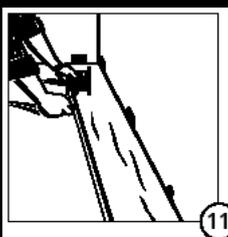
What you will need

The floor panels have a groove and a tongue or click system, this will enable the floor panels to be fitted into each other mechanically. The only tool that you will need is a hammer, a fine-toothed saw, a folding ruler, a tensioning wire (cord) along the length of the room, a set square, and an installation set consists of a stop block, a stop iron and spacer blocks.

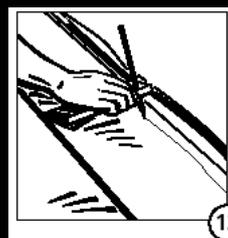


Before starting the installation

Your floor has been manufactured with the best possible care. However, we would still advise you to check white floor panels for visible deviations such as damage, extreme colour differences and shape or dimensional deviations. Complaints concerning visible deviations will not be entertained after floor panels have been installed. Ensure good lighting when installing the floor. You may remove the existing skirting boards and reinstall them after installation (see Fig 3). To enable the floor to shrink and expand freely under the skirting boards, end-pieces and transition skirting boards should be fixed on the walls. In other words, these skirting boards should not be fixed on the floor panels. Flat, self-adhesive skirting boards may be affixed to the floor panels.



An expansion joint of around 15mm should be installed all around the floor. Place a spacer block at every 60cm (See figure 10). Remove then 24 hrs after the floor has been laid. When the first row has been installed, check whether it is fully straight by tensioning a rope along the length (See figure 11). After the third row, check again if the floor is level.

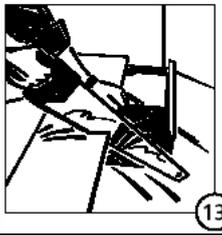


If the wall is not straight you should transfer the unevenness to the floor panels. This may be done using a spacer with a lead pencil (See figure 12). After the floor panels have been marked, saw as required. Use a fine-toothed saw of the purpose. If hand saw is used, make sure the décor side is facing upwards; if a jigsaw is used, keep the décor facing downwards (see Figure 13).

Nail-Down Installation (Secret Nailing)

Commonly used with tongued boards, the installer should start at one end of the room and leave an expansion gap around the entire perimeter to allow for expansion. They should carefully select several of the straightest boards and once they have been nailed in place, go back and nail the same boards through the tongue, pre-drilling and nailing at a 45° angle. After the third row or so is in place a manual or pneumatic floor-nailer can be used.

The floor nail or cleat used should be ring-shanked or jagged and no less than 2.5 times the thickness of the boards. They should be set into each floor joist or batten, assuming 400mm (about 16 inch) spacing and an additional nail between each set. This should result in a spacing of every 200mm (about 8 - 10 inch) as recommended by the National Wood Flooring Association. All boards must have a minimum of two nails each.



No two connecting boards should end on the same line so the installer should alter lengths, to stagger joints at least 150mm (about 6 inch) apart. Often the last row will not fit a full strip of flooring and should be cut so the installer is able to hand nail the last row, leaving enough space for an expansion gap between the wall and the wood. For better aesthetics the installer should run the boards through the doorway and continue into the adjacent room, although it may not be possible in all property types or room layouts (See figure 7).

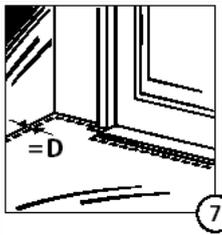
Floating Installation

Using the floating method of installation will require the pre-laying of an underlay in order to provide a cushion between the floor and the subfloor. This method will only lend itself to engineered boards although wide engineered planks are not recommended to be used with this method. The other downside with this method is that the floor is more likely to 'creak' and the glue that is commonly used can break down over the years, and the joints work loose.

Using the correct underlay is essential when floating a floor! Underlay combining a built in DPM should be fitted at ground and basement levels or above concrete subfloors, where an acoustic reduction underlay should be used in multi occupant buildings to provide sound reduction between floors. Once the underlay has been fitted according to manufacturer instructions, the installers should start installing the planks on one end of the room and leave an expansion gap around the entire perimeter to allow for expansion (See figure 7). In this method no nails are to be used and the board's either connect using a click system or the tongue and grooves are glued together using specialist adhesive.

Although providing a better overall look, continuing boards between adjacent rooms may not be suitable for all room layouts or property types due to excessive movement. What is Underlay A material placed under a wood floor to smooth the subfloor, help cut down airborne noise, protect against damp and/or as a resilient layer under a floating floor.

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Glue-Down Installation

Glue-down installation is our preferred method and requires the use of an adhesive or bonding agent applied directly onto the subfloor. This method can be used on both concrete and timber subfloors, providing an extremely stable floor when done properly, although will require a slightly longer overall installation process.

For optimal application, a flexible adhesive should be used and the trowel should be worked at a 45° angle so the adhesive left on the floor by trowel teeth is just the right amount. Adhesive should only be applied to surfaces that can be reasonably covered in under an hour. Most flexible adhesives are also designed with under floor heating in mind and can be used for both solid and engineered floors. Laying over a concrete subfloor may first require a liquid Damp Proof Membrane to ensure no damp rises into the new floor.

As with other installation methods, the installers should leave an expansion gap around the perimeter then carefully select the boards, setting aside any with imperfections or high colour variation for less visible areas of the floor. The installer should then press the planks down into the adhesive with a slight sliding movement, keeping adhesive out of board grooves and sides to ensure perfect fit with adjacent board tongue.



No two connecting boards should end on the same line so the installer should alter lengths, to stagger joints at least 150mm (about 6 inch) apart. Often the last row will not fit a full strip of flooring and should be cut so the installer is able to glue the last row, leaving enough space for an expansion gap between the wall and the wood. For better aesthetics the installer should run the boards through the doorway and continue into the adjacent room, although it may not be possible in all property types or room layouts (See figure 7).

Other aspects of installation

Installing Parquet Blocks

As with wide plank flooring, before laying the floor the installer may need to undercut the bottom of door-frames, wardrobes, kitchen plinths etc. to allow for the planks to fit under. Doors may also need to be undercut as the new floor may end-up higher than the original one (See figure 6).

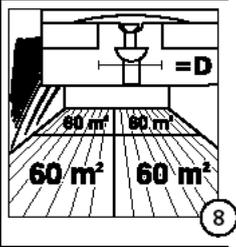


Determining pattern direction

Although Herringbone or brick patterned flooring can be installed from any point in the room, we recommend considering architectural features (main entranceway, wall with window, fireplace) and the longest section within a room before deciding on pattern direction. The information in this section refers mainly to installation based on the Herringbone pattern as it is more complex.

Installing guidelines

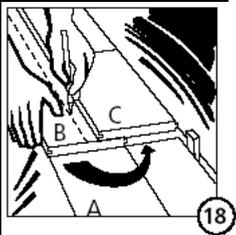
Using a chalk line, the installer should mark a guideline in the centre of the room to indicate the centre of the pattern then mark one line on either side of the centre line. These lines will provide a guide through laying the upper corners of the boards (See figure 9). Additional parallel guidelines across the entire floor surface can be marked if required to help with subsequent rows.



Movement joints should be installed if floors are more than 12 m long or more than 6 m wide, as well as near door openings, between rooms, at turns in passages, etc (See figure 8) These movement joints may be finished using specially developed dilatation joint profiles. There should be an offset of at least 40cm between the top ends of the floor panels in consecutive rows.

Last row

While fitting the last row of floor panels, lay the floor panels with the decorative side down with the groove against the wall. Now make the required markings and cut with the saw (See figure 18). Also keep in mind the prescribed expansion joint of 15 mm, and that the floor should be free all round. If it is difficult to reach the last row, lay the boards one by one as close as possible against the boards of the last row but one. Then push them together lengthwise using a pull iron and a hammer. The cross-cut ends are tightened using a stop block or a pull iron and hammer.



Installing a backer board

The installer can use a piece of plywood to make a backer board that will assist in starting the first row of boards. The board should be cut perfectly square, at approximately 5mm shorter than the length of the block (i.e. 345mm x 345mm plywood backer board for 350mm long blocks). Installation should begin in the centre of the room, aligning two opposite corners of the backer board with the guideline, securing it to the subfloor. A block should then be placed on each side of the backer board to ensure measurement accuracy, then removed.

Applying adhesive

For optimal adhesive application, a flexible adhesive for wood blocks should be used and the trowel should be worked at a 45° angle so the adhesive left on the floor by trowel teeth is just the right amount. Adhesive should only be applied to surfaces that can be reasonably covered in under an hour.

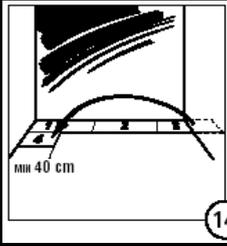
Installing the first line

At this stage the installer should carefully select the boards, setting aside any with imperfections or high colour variation for less visible areas of the floor. To install the boards the installer will be required to align the right and left corners with the guidelines while pressing the board down into the adhesive with a slight sliding movement. If installing blocks with a tongue and groove, the tongue side should be laid against the backer board. It is important to keep adhesive out of board grooves and sides to ensure perfect fit with adjacent board tongue.

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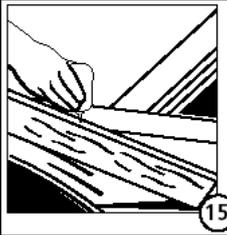
Less wastage

Lay the first row of panels by gluing each subsequent panel on the short side. In the second row, start with the remaining part of the first row (See Figure 14). This part however, must be at least 40cm in length, so as to ensure that the floor has optimum stability and also to ensure minimum loss of material. The panels should be glued along the entire length and width. Be careful with excess of glue. (See figure 15)



Securing the blocks

If installing over a timber subfloor, in addition to the adhesive the blocks should also be manually fixed to the subfloor. If laying 10mm or thinner overlay blocks, secure the blocks with headless pin, four on each surface corner. For thicker tongue-and-groove blocks, nail down the first line to secure the floor properly. Proceed the same way with subsequent blocks until you are ready to cut the last board in the row. If you are installing a border, make sure it is installed before cutting the last row. Always leave an expansion gap between the wall and the end of the last board in each row. Make sure to check alignment every row to ensure that the blocks are still square.



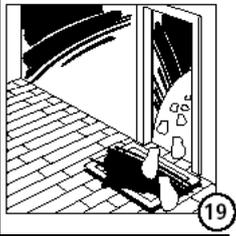
Post Installation

Once the floor is fitted, the installer should clean up and remove any rubbish related to the installation. For parquet or wide unfinished planks the installers should now carefully sand and/or seal the floor using specialist tools and finishes, depending on type of flooring and required finish.

PRE-FINISHED FLOORS ARE FACTORY FINISHED AND MAY NOT BE SUITABLE TO RECEIVE AN ADDITIONAL FINISH ON SITE SO PLEASE CHECK WITH US PRIOR TO APPLICATION.



MAINTENANCE GUIDE



If additional building work is to be carried-out or heavy furniture is fitted and/or moved around we would recommend laying a 3mm hardboard, taped at connections, on top of the new floor. This will help protect against tools and equipment accidentally dropping, painting splashes and scratches due to furniture movement etc. Please note that this may not protect against brick-dust or other building dust reaching the floor and some maintenance work may be required to restore the floors lustre if a significant amount of work has taken place post installation.

Good maintenance will increase the life of your floor. For proper maintenance please refer to your sales point. Protect your floor by placing a good floor mat near the doors in order to prevent the entry of sand. We also advise you to protect your furniture and chair feet with felt (See figure 19).

FLOORS EXPOSED TO BRICK OR OTHER BUILDING/RENOVATING DUST MAY LOOSE LUSTRE AND REQUIRE A MAINTENANCE FINISH TO BE APPLIED FOLLOWING WORKS.

FLOOR MAINTENANCE GUIDESimple maintenance and care procedures will help protect your wooden floor from unnecessary wear and damage and help keep it at its best:

- Sweep and vacuum the floor regularly to keep it clean and free of dust, sand and other abrasive materials.
- Do not use any harsh household cleaners, oils, soaps, waxes or any abrasive materials or scouring agents on the floor. Instead, for a more thorough clean, use a wood floor cleaning solution approved for use with our flooring.
- Put felt protector pads on all furniture feet and/or accessories placed directly on the floor surface.
- Place area rugs or doormats at entryways to help prevent sand, grit, oils, dirt and other abrasive or staining materials from being tracked from outdoors. Choose mats that enable airflow and avoid using rubber-backed or similarly dense matting materials that may trap moisture.
- Place protective mats at high-use work areas such as sinks, ranges and workstations.
- Protect the floor from any exposure to liquids, water and other forms of moisture. Clean up any spilled drink, food or other liquids immediately. Clean floors using a well wrung mop. Avoid walking on the floor with wet feet or footwear. Damage caused by flooding, broken pipes, wet mopping or any other exposure to liquid or moisture is not covered by the product warranty.



- Avoid sharp or pointed objects coming into contact with the floor surface. Do not walk on the floor with high heeled shoes, trainers, or other type of footwear which may cause damage to the finish or cause indentations to the surface.

- Use heavy duty moving mats, dollies, or other moving aids when moving furniture, appliances or other heavy objects across the floor to avoid scratches or scuffs the surface.

- Hardwood flooring reacts to changes in the environment so it is important to ensure that environmental conditions are maintained with a temperature of 18°-24°C (65°-75°F) and humidity at 35 - 55% at all times. Excessive humidity, moisture, heat, or dry conditions can result in cupping or splitting of boards, gapping between boards and/or other problems resulting from exposure to improper environmental conditions, and are not covered by the product warranty.

- Wood flooring installed over a radiant heating system should never exceed 27°C (81°F) at floor surface. In addition dramatic temperature changes should be avoided and temperature adjustments should be gradual, in maximum 5°C increments a day it is important that a dedicated thermostat is installed at floor surface level to allow the temperature to be accurately controlled.

NOTE: The instructions above apply only to wood flooring specifically approved for use over radiant heat. Installing flooring which is not approved over a radiant heating system will void any product warranty and may result in damage to the floor.

- Pet nails may scratch and mark the floor surface and should be keep trimmed.

- Hardwood flooring will undergo a natural change in colour as it adjusts to its environment and new ambient light conditions. Although the degree of colour change varies by species, it is recommended that you do not place area rugs and large furniture items on the new floor for at least two months following installation to ensure a uniform change. Following which, periodic re-arrangement of furniture and area rugs will help ensure natural even change.

The information provided in this document should be used as guidelines only. No warranty or guarantee is offered or implied to the suitability of any system, installation and/or flooring products for any specific purpose.



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