Wood Flooring Installation Guide
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Important Notes

The purpose of this booklet is to outline the basic principles of installing your Fired Earth Wood Flooring.

For more detailed technical information, refer to British Standards Wood Installation Guide BS 8201-1987
The Subfloor must conform to BS8204: Part 1 1987

As we have no control of the storage and handling of the timber on site, site conditions or the quality of workmanship we strongly recommend you employ the services of an experienced and competent wood fitter.

Our wood flooring has been tested with adhesive and Taylor primers and also Hardwax oils. We would strongly recommend the use of these products.

It is the responsibility of the owner/installer, whether professional or not, to determine that all internal site conditions are stable and suitable for the installation of the agreed flooring. Moisture and humidity readings must be taken prior to installation – please see Site Preparation for further detail. The wood flooring must also be thoroughly checked prior to installation. No complaints regarding the appearance of the product will be accepted by the company once the wood has been installed.

For further information, or if any doubt exists, please telephone your local showroom for advice prior to installation.

Read the instructions on the packaging of all ancillaries and equipment very carefully. Keep everything meticulously clean and orderly as work progresses.

Website: www.firedearth.com

All our installation guides are available to download from our website: Wall Tiling, Under Floor Heating, Wood Flooring, Bathroom and Waterproofing Showers and Bathrooms.

Useful Numbers:

UK Sales 0845 366 0400
Home Deliveries 01295 814313
Customer Care 01295 814396
osmo Woodcare 01296 481220

Disclaimer:

The specifications and technical information given in this publication are intended for guidance and although they are to the best of our knowledge correct, they are given without warranty.

We cannot accept any responsibility for reliance placed upon the advice contained herein since practical expertise and site conditions are outside of our control. Neither do we accept liability for the performance of the product arising from such use. This does not affect your statutory rights

June 2017
Where to install wood

Wood flooring can be used internally in most rooms except those which are likely to get excessively wet. We do not recommend the Fired Earth Wood Collection in bathrooms or wet rooms. If considering wood flooring in conservatories we would only recommend engineered flooring and only when the conservatory shares the same conditions as those found in the house.

Delivery, storage and acclimatisation of Solid, Engineered & Parquet Wood.

Please do not arrange delivery to site until all wet works (i.e. subfloors, plastering, painting, cement work and tiling) are completely finished and dry. Conventional heating systems should have been run for a minimum of two weeks and underfloor heating for a minimum of three weeks.

It is essential that wood flooring is allowed to acclimatise and is stored correctly once delivered to site. The wood flooring should be placed in the room where it is to be fitted or in one with a similar environment. Solid wood must be left for a minimum of 10 days to acclimatise and engineered for a minimum of 48 hours. The room temperature should be at normal living conditions (minimum of 15°C and maximum 25°C and a relative humidity of 45-65%) The flooring should be unwrapped and lattice stacked, separated by battens, to allow air to circulate around it. The product should not be stored next to a radiator or on any direct heat source.

General notes

Engineered Flooring – A product of the modern age. With the aesthetic characteristics of a solid board, it provides more versatile fitting options. Top layer of 4mm oak glued to 11mm of crossover glued birch. The construction increases the stability of the planks and reduces the natural tendency of wood flooring to expand, contract, warp and cup due to the changing room temperature or moisture in the air. Suitable for use over underfloor heating.

Solid Flooring – A classic floor. It is cut from a single piece of timber and of structural thickness. Traditionalists will be unanimous in their appreciation of solid flooring. Available in long plank or Parquet. We would not recommend using solid wood flooring with underfloor heating.

Engineered Parquet Flooring – A contemporary version of the traditional solid Parquet blocks. Engineered parquet offers a more versatile and stable option with reduced size variation and visible gaps. Top layer of 4mm oak glued to 6mm of crossover glued birch. Suitable for use over underfloor heating.

Brushing – The surface of the planks are roller brushed to remove some of the softer growth. This results in a textured surface that gently highlights the natural grain structure of the wood.

Hardwax Oils – All prefinished boards are oiled with osmo® products, giving deep protection because they are oil based and the natural wax sits on the surface to protect against daily wear and tear.

Smoking – Smoking oak boards with ammonia is a traditional method for enriching and darkening the floor’s appearance. The tannin acid within the oak reacts with the ammonia to create a truly unique finish. Not every oak board contains the same quantity of tannin therefore the colour and appearance can vary significantly.

Cutting and wastage – For a standard area, a rough guide of 6% is recommended. For small, and complicated areas or if a greater deal of consistency is required we would recommend 10%.
Tolerances – Due to the nature of wood some variation in the size and thickness of the wood will occur. These variations may be more noticeable in Solid flooring.

Natural features of wood – All our wood floors are carefully selected to offer a range of the naturally occurring characteristics of the tree. This will include knots and shakes.

Considerations prior to Installation/Planning the room

Wood floors should be installed at the final stage, prior to decoration. Generally speaking, the boards should be laid lengthways towards the main incoming light source and, where possible, down the length of the room.

It is the responsibility of the owner/installer, whether professional or not to determine that all internal conditions are stable and suitable for the installation of the agreed flooring.

The wood flooring must be thoroughly checked to ensure the correct finish and quantity has been received.

When fitting a floor subject to significant variation, whether it be board length, colour, and/or natural features, the board selection has a significant influence on the overall look of the room. The fitter must be sensitive to this and distribute variation evenly (this is particularly imperative with the smoked floors) to achieve a natural looking floor. In addition it is the installer’s responsibility to ensure the suitable placement of distinctly featured boards. We would recommend dry laying the floor prior to installation. Any boards deemed too conspicuous can be used as cuts or installed in less obvious areas.

We would also recommend the client and installer agree a starting point for installation as the first row of flooring sets the line for the entire floor.

Prior to laying the boards it may be necessary for the installer to under-cut the bottom of kitchen plinths, doorways etc to enable the boards to fit underneath.

Skirting Boards and Expansion Gaps:

To accommodate the natural expansion and contraction movement of wood a 15mm expansion gap is required around the entire perimeter of the area to be fitted. This includes doorways and fireplaces. A 15mm gap is sufficient for a maximum flooring width of 6.0 linear metres between walls. For floors in excess of 6 metres wide, additional expansion of approximately 1mm per metre width will need to be integrated evenly across the floor.

Whenever possible the skirting boards are best fitted after installation of the wood as they can conceal the expansion gap around the perimeters. If this is not possible the expansion gaps can be concealed with hardwood beading.

Solid Parquet:

Parquet does not feature a micro bevelled edge, therefore with the prefinished Parquet the height difference and small gaps between the many separate board pieces may be visible following installation. Due to the size tolerance within each board, you could typically expect to see solid boards with around a 1mm size difference. This cannot be avoided.

An experienced and skilled herringbone installer must be used for Parquet flooring. Fitters would normally balance the board gaps so that they are spread evenly across the installation. As a result of this process, small gaps are to be expected. With a white finish like Seashell, these gaps will be more obvious to the eye.
Important Site Preparation for ALL Fired Earth Wood Flooring

Careful site preparation is essential to avoid potential problems with wooden floors after installation.

Moisture and Humidity in all substrates:

All wood is hygroscopic (it will react to the moisture around and in contact with it) and as a result will expand or contract accordingly. A damp atmosphere will cause the wood to expand and dry conditions will cause the wood to shrink. Shrinkage will create gaps between boards, which is a characteristic of wood floors. Excessive variation in humidity can lead to boards distorting in shape and possibly lifting.

All wet works (i.e. subfloors, plastering, painting, cement work and tiling) must be completely finished and dry. Conventional heating systems should have been run for a minimum of two weeks and underfloor heating for a minimum of three weeks.

All possibilities of damp e.g. Drains, damp proof courses, plumbing, washing machines etc must be thoroughly checked and repaired if leaking. The suitability of the environment of a particular room for a wood floor can only be assessed by the use of good quality testing equipment. Fired Earth recommend Protimeter’s MMS test equipment for measuring moisture content, relative humidity and temperature. Do not use existing or previously laid floors as a guide to the suitability of laying a new floor. Failure to carry out the correct checks and take preventative action at this stage leads to the vast majority of wood flooring problems. Fired Earth would suggest that the services of an experienced wood flooring installer are employed.

Subfloor preparation for ALL Fired Earth Wood Flooring.

All construction dampness must be completely dry and the property should be at the temperature and humidity expected during occupation. The condition of the subfloor is integral to the stability and performance of the finished floor. All substrates should be structurally sound, flat, free of any debris, old adhesives, clean and dry. The normal tolerances are +/- 3mm over a 2.0 metre straight edge.

Preparing subfloors of Sand and Cement / Concrete / Anhydrite screed:

Prior to installing the wood floor, using Fired Earth recommended equipment, check and record the relative humidity (RH) level of the subfloor. If above 85% wood floors must not be fitted and specialist advice is recommended.

Concrete subfloors must contain a damp proof membrane (DPM). If one does not exist or has been damaged then a new DPM must be fitted prior to installing the wood floor. Uneven subfloors should be levelled with Norcros Pro 50 Levelling compound.

The subfloor should be level, smooth, dust free and sealed with at least one application of Taylor Encap Primer.
Preparing Subfloors of Existing Timber:

E.g. Joists, tongue and groove floorboards, plywood/chipboard and floating floors. A final moisture check should be carried out and recorded immediately prior to installation. The wood to be installed should be within +/- 2% moisture of the surface onto which it is to be fitted.

Existing wood floors must be dry, level and firmly fixed. Loose boards not secured may cause the new floor to squeak. Take care if using nails and screws not to damage pipes or electrical cables beneath. If the floor is on or below ground level the installer should ensure there is no moisture build up beneath the boards, that there is adequate ventilation beneath and between the joists, and air bricks are present and not blocked. Suspended ground floors must have sufficient cross ventilation to prevent condensation occurring on the underside of the flooring. It is advisable to lay a suitable membrane over the joists to help protect the undersides of the new boards from moisture.

Other floor finishes:
Porcelain tile, Natural stone/slate tile, lino and carpet should be removed prior to installation. Please follow installation guidelines above.
Installing the Wood Flooring.

**Solid Boards – Installing on to subfloors of Sand and Cement / Concrete / Anhydrite screed:**

- Solid Boards should be fully bonded to a suitably prepared subfloor using Osmo MS Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines.

- Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished boards. Distribute any gaps across all boards as you install.

- Stagger the joints between the ends of boards and ‘Shuffle’ boards from all packs to ensure a natural looking floor is achieved.

- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.

- Solid boards are not suitable for installation over underfloor heating systems.

**Solid Boards – Installing on to subfloors of Existing Timber:**

- Solid Boards should be fully bonded onto a suitably prepared timber subfloor using Osmo MS Advanced Wood Adhesive or secret nailed using the Portanail system. Please follow the manufacturer’s installation guidelines.

- Solid boards should be laid at a 90 degree angle to the existing floor boards. If the new boards are to be laid in the same direction as the old, flooring grade plywood sheets of a minimum 6mm thickness should be nailed or screwed down to cover the existing floor.

- Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished boards. Distribute any gaps across all boards as you install.

- Stagger the joints between the ends of boards and ‘Shuffle’ boards from all packs to ensure a natural looking floor is achieved.

- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.

- Solid boards are not suitable for installation over underfloor heating systems.

- Solid boards can, if required, be secured directly on to sound and secure joists using the Portanail system. The distance between the joists should not exceed 450mm. Please follow the manufacturer’s installation guidelines.
**Engineered Boards – Installing on to subfloors of Sand and Cement / Concrete / Anhydrite screed:**

- Engineered Boards can be fully bonded to the suitably prepared subfloor using **OSMO** MS Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines.

- Alternatively, Engineered Boards can be installed using the floating system. We would recommend the pre-laying of a suitable underlay to provide a cushion between the boards and the subfloor. Float the floor on top of the underlay, gluing the tongue and groove joints with a suitable wood adhesive.

- Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished boards. Distribute any gaps across all boards as you install.

- Stagger the joints between the ends of boards and ‘Shuffle’ boards from all packs to ensure a natural looking floor is achieved.

- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.

- Engineered boards are suitable for installation over electric or water underfloor heating systems. The boards should be fully bonded to the suitably prepared subfloor using **OSMO** MS Advanced Wood Adhesive. See underfloor heating section (Page 12)

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**Engineered Boards – Installing on to subfloors of Existing Timber:**

- Engineered Boards can be fully bonded to a suitably prepared timber subfloor using **OSMO** MS Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines. Please ensure existing boards are a minimum 20mm thick.

- Alternatively, Engineered Boards can be installed using the floating system. We would recommend the pre-laying of a suitable underlay to provide a cushion between the boards and the subfloor. Float the floor on top of the underlay, gluing the tongue and groove joints with a suitable wood adhesive.

- Engineered Boards should be laid at a 90 degree angle to the existing floor boards. If the new boards are to be laid in the same direction as the old, flooring grade plywood sheets of a minimum 6mm thickness should be nailed or screwed down to cover the existing floor.

- Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished boards. Distribute any gaps across all boards as you install.

- Stagger the joints between the ends of boards and ‘Shuffle’ boards from all packs to ensure a natural looking floor is achieved.

- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.

- Engineered boards are suitable for installation over electric or water underfloor heating systems. The boards should be fully bonded to the suitably prepared subfloor using **OSMO** MS Advanced Wood Adhesive. See underfloor heating section (Page 12)
Solid Parquet – Installing on to subfloors of Sand and Cement / Concrete / Anhydrite screed:

- Solid Parquet should be fully bonded to the suitably prepared subfloor using OS\textsuperscript{M} Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines.

- Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished parquet. Distribute any gaps across all boards as you install.

- ‘Shuffle’ boards from all packs to ensure a natural looking floor is achieved.

- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.

- Solid parquet is not suitable for installation over underfloor heating systems.

- Unfinished Solid Parquet must be filled, sanded and oiled on site.

Solid Parquet – Installing on to subfloors of Existing Timber:

- Solid Parquet should be fully bonded onto a suitably prepared timber subfloor using OS\textsuperscript{M} Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines. Please ensure existing boards are a minimum 20mm thick.

- Solid Parquet laid in a ‘brick bond’ pattern should be installed at a 90 degree angle to the existing floor boards. If the parquet is to be laid in the same direction as the floor boards, flooring grade plywood sheets of a minimum 6mm thickness should be nailed or screwed down to cover the existing floor.

- Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished parquet. Distribute any gaps across all boards as you install.

- ‘Shuffle’ boards from all packs to ensure to achieve a natural looking floor.

- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.

- Solid Parquet is not suitable for installation over underfloor heating systems.

- Unfinished Solid Parquet must be filled, sanded and oiled on site.
• **Engineered Parquet – Installing on to subfloors of Sand and Cement / Concrete / Anhydrite screed:**

  - Engineered Parquet should be fully bonded to the suitably prepared subfloor using MS Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines.
  
  - Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished parquet. Distribute any gaps across all boards as you install.
  
  - ‘Shuffle’ boards from all packs to ensure a natural looking floor is achieved.
  
  - Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.
  
  - Engineered parquet is suitable for installation over electric or water underfloor heating systems. The boards should be fully bonded to the suitably prepared subfloor using MS Advanced Wood Adhesive. See underfloor heating section (Page 12).
  
  - Unfinished Engineered Parquet must be oiled on site.

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**Engineered Parquet – Installing on to subfloors of Existing Timber:**

- Engineered Parquet should be fully bonded onto a suitably prepared timber subfloor using MS Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines. Please ensure existing boars are a minimum of 20mm thick.

- Engineered Parquet laid in a ‘brick bond’ pattern should be installed at a 90 degree angle to the existing floor boards. If the parquet is to be laid in the same direction as the floor boards, flooring grade plywood sheets of a minimum 6mm thickness should be nailed or screwed down to cover the existing floor.

- Ensure that the tongue and grooved joints are correctly aligned. Note that a slight gap between boards at the tongue and grooved joints is to be expected on pre finished parquet. Distribute any gaps across all boards as you install.

- ‘Shuffle’ boards from all packs to ensure to achieve a natural looking floor.

- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.

- Engineered parquet is suitable for installation over electric or water underfloor heating systems. The boards should be fully bonded to the suitably prepared subfloor using MS Advanced Wood Adhesive. See underfloor heating section (Page 12).

- Unfinished Engineered Parquet must be oiled on site.
Solid Unfinished Panels– Installing on to subfloors of Sand and Cement / Concrete / Anhydrite screed:

- Solid Parquet Panels should be fully bonded to the suitably prepared subfloor using Osmo® MS Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines.
- ‘Shuffle’ panels from all packs to ensure a natural looking floor is achieved.
- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.
- Parquetry Panels will require sanding and oiling on site.
- Solid parquet panels are not suitable for installation over underfloor heating systems.

Solid Unfinished Panels – Installing on to subfloors of Existing Timber:

- Solid Parquet should be fully bonded onto a suitably prepared timber subfloor using Osmo® MS Advanced Wood Adhesive. Please follow the manufacturer’s installation guidelines.
- ‘Shuffle’ boards from all packs to ensure to achieve a natural looking floor.
- Ensure an expansion gap of at least 15mm is maintained around the perimeter of the floor.
- Parquetry Panels will require sanding and oiling on site.
- Solid Parquet Panels are not suitable for installation over underfloor heating systems.

Installing Wooden Flooring over Underfloor Heating.

Only Engineered boards and engineered parquet are suitable for installation with underfloor heating. Solid boards and Solid Parquet should not be installed over underfloor heating.

Please ensure your underfloor heating supplier is aware that a wooden floor is to be installed over their system. The underfloor heating must be installed according to the manufacturer’s guidelines and run as per their guidelines for at least three weeks prior to wood installation. Please note:

The heating should be turned off prior to installation.

Water Systems:

Over water systems we would recommend gluing the flooring to the fully prepared substrate with Osmo® MS Advanced Wood Adhesive. Please note the water within the system should not exceed 40ºc.
Electric Systems:

Warmup electric mat systems have been tested with the engineered flooring. The existing substrate should be covered with a Warmup insulation board, the mat should then be installed on top and covered in a 10mm layer of Norcros Pro 50 Levelling compound to encapsulate the wires. The engineered boards or engineered parquet should then be glued to the fully dry and prepared substrate with Osmo™ MS Advanced Wood Adhesive.

Commissioning – all systems

Following the completion of the wood flooring installation the heating should be turned on at a low temperature, gradually increasing the temperature over a number of days, so as not to shock the wood. We would not recommend covering the floor with rugs or protective sheeting as this may compromise the timber, glue and/or finish. With all systems the surface temperature of the new timber floor must not exceed 27ºc (81ºf). Significant damage may occur to the flooring if this is not adhered to.

Sealing and finishing

The majority of the Fired Earth Wood Collection is supplied pre finished with Osmo™ Hardwax oil. These floors do not require any additional oiling on-site. The oil penetrates the surface protecting the wood from within, while the wax forms a protective surface on the wood leaving it natural, beautiful, protected and durable.

Our unfinished solid parquet and panels require finishing on site. Once installed they may require filling with a suitable product. Apply according to manufacturer's guidelines. Once the filler is dry additional sanding will be necessary. The level of sanding required will depend on the product and sub-floor. After sanding we would recommend 2 coats of Osmo original Hardwax Oil for a natural finish.

Maintenance and after care

All Fired Earth pre finished wood flooring is coloured and sealed using Osmo™ oils. Therefore it is imperative only Osmo™ products are used to clean and maintain this flooring. The use of non-specialist products will damage your floor over time. The Osmo™ cleaning products are specially developed to care for and revive the finished boards. Please note, wood is a natural product and if not cared for properly, damage will occur. It is the customer’s responsibility to look after and correctly clean and maintain the flooring.

On a regular basis we would recommend the use of Osmo Wash and Care which removes most day-to-day stains from your floor. To remove loose dust and dirt, vacuum or sweep the floors with a soft brush.

For more stubborn marks, scuffs and small scratches the Osmo® Liquid Wax Cleaner is recommended (can be used a maximum 2-3 times a year). For floors finished in a white oil, the Osmo® Liquid Wax Cleaner White must be used. After approx. 2-3 years some areas may require a further coat of Osmo® Hardwax oil.

Environmental conditions – To avoid abnormal movement in your floor we would recommend room temperature and humidity are within normal living conditions.
Entrance Mats – To protect against dirt and grit being brought in from outside and damaging your floor we would recommend the use of high quality entrance mats.

Pads and Castors – To prevent unnecessary scratches and damage to your wood floor fit suitable felt pads or castors to items of furniture which move across the floor without being lifted. Sharp heels, particularly stilettos will dent and/or scratch wooden floors.

Ageing – As with any natural product, direct sunlight may alter the colour of the flooring. Areas of the surface that are covered (for example by furniture and rugs), may not change colour to the same extent. If possible, these items should be moved regularly.

Spills – Don’t let spills stand on your wood floor. Individual spillages should be removed immediately using a damp cloth. Do not allow moisture to remain on the floor.