

Fitting & Finishing Instructions for solid wood floors

About our timber flooring

All our timbers have been kiln dried to have moisture content of between 7-10% (858201) and has been accurately machined to T & G and in many cases, ends matched which allows for easier fitting and minimum wastage.

Site conditions

Site Conditions are extremely important and can make all the difference to a timber floor. The overall fabric walls, floors, timber etc.) of the building should be thoroughly dried out so that there are no visible signs of moisture or condensation. All wet work (concrete, plastering etc.) must be completed and dry before you think of having the flooring delivered.

- (a) All under floor concrete slabs should be dried to 2-4% moisture content (858201) and this may take at least 1 month per 25mm thickness of slab. Concrete sub floors must be clean, dry and flat (use a self-levelling compound to correct any errors, again ensuring that it is completely dry).
- (b) Existing flooring, plywood, flooring grade chipboard or MDF sub floors should be in good structural condition, level and free from rot and fungus. New timber joists, battens and supporting timber should be kiln dried to 15% and under.
- (c) Ambient conditions should be within the ranges of Temperature of 15°C to 27°C (858201) and relative Humidity of 35% -65% (858201).
- (d) Timber should be acclimatized in the room where it is to be laid at the conditions expected for at least a week if not longer.
- (e) Expansion gaps should be left around the perimeter of the floor and occasionally at intervals across the width of the floor of between 10mm and 20mm depending on the size of the room, i.e. 10-12mm for spans up to 8m and 15-20mm for spans in excess of 8m.

The effects of Heating and Climate on Stability

- (a) As mentioned before the timber needs to acclimatize
- (b) Expansion gaps are left around the perimeter of the floor and occasionally at intervals across the width of the floor depending on the size of the room.
- (c) Seasonal variations and levels of heating may cause the timber to expand and contract. Small gaps may appear during winter when the heating is turned up, but these will close up again during the summer months.

Under Floor Heating and Solid Hardwood Flooring

There are no hard and fast rules about the suitability of under floor heating system and timber flooring, it will depend on many factors, i.e. U value, room geometry, air circulation etc, plus the design of a suitable heating system. Speak to your heating supplier and ask for information on the suggested moisture content of the timber before it is laid. It may be worth thinking about laying a multi-layered floor, which has been cross-engineered for dimensional stability, ideal for going over Under Floor Heating. It is advised that these boards are adhered to the sub floor rather than floated PLEASE REMEMBER THAT TIMBER IS AN INSULATOR, YOU WILL NOT GET THE SAME HEAT EMISSIONS FROM YOUR UNDERFLOOR HEATING SYSTEM AS YOU WOULD IF CERAMIC, SLATE OR STONE TILES WERE USED. We would also suggest that multi layered boards be used in conservatories where temperatures can be excessive at certain times of the year.

Laying guidelines

Boards of up to and including 160mm

For boards of up to and including 160mm widths We would suggest that any board up to and including 160mm could be fixed using the secret nailing method (if the timber is going over existing timber flooring please check cables, water pipes etc before using this method). Using a Secret Nailer and 50mm long serrated T nails fix the boards at a 45° angle through the base of the tongue at 300mm centres or less. This method can be used over Existing Floors, Battens, Flooring Grade chipboard, Plywood or MDF. If the flooring is to be fitted over joists, and then the floor should be laid at 45° or 90° to the joists and nailed where possible, but at not more than 300mm centres. The flooring should not be fitted over joists over a poorly ventilated cavity; the timber will absorb moisture and expand. In these circumstances it is best to board over the joists with moisture proof Plywood or with a waterproof membrane, which can be laid with ply and fit the floor using the secret nailing method. If the sub floor is concrete, (please take note of the comments in site

conditions) then battens should be used fixed either by adhesive or screwing into the concrete. Battens should be 20mm and set at 300mm centres. You can, if you wish, insulate between the battens. Fix the flooring using the method described above. We also stock a range of adhesives, please see below, which are ideal for fitting timber flooring on to a concrete sub floor (please take note of the comments in site conditions).

For Boards wider than 160mm

The wider the board the heavier the board. Just using the secret nailing method is not enough for boards wider than 160mm. These boards need to be face fixed, either by plugging and screwing, screwing and filling or using decorative nails. There is another way of fixing a wide board, but care and expertise must be used, first apply a flooring grade chipboard to board to the subfloor floor, using EP501 to adhere the boards to the sub floor and at the same time secret nail through the tongue at a 45° at 350mm centres. Once the floor had been laid then check over the boards, looking for vulnerable spots and secret nailed through the face at a 90° angle. These pins can hardly be seen and if necessary can be filled with a filler or stopping. Do not forget to leave expansion gaps all the way around the room as detailed in site conditions.

Adhesives

EP 501 is a water and solvent free, two-part epoxy adhesive for use where the concrete sub floor is clean, dry, dust free and flat. We would suggest that the floor be laid dry first, remembering to leave expansion gaps all the way around the room and in any other areas where they may be required. Mix the adhesive off site, and then place the tin on some newspaper so no drips or splashes go on the face of the floor. Starting at the longest edge, lift half a dozen or so boards and with a serrated trowel apply a light covering of the adhesive on the sub floor and replace the boards. Please remember to retain the expansion gaps. Too much adhesive will result in the boards lifting and or the adhesive seeping between boards, too little will not be enough to hold the boards down. **Coverage: 800- 1400gr/m2 depending on the sub floor.**

If your sub floor is very porous and/or very dusty, we recommend a coat of **Primer PUB 77** diluted with thinners **DMC50** (30%-50%) 24 hours before using the EP501 or PUR 164.

PUR164, a one component polyurethane adhesive for use on sub floors where a silicone layer has been added to a concrete floor or to an asphalt sub floor, or where a single component adhesive is preferred. Apply as the **EP501** above. **Coverage: 900- 1500gr/m2 depending on sub floor.**

PUB 77 is a one component product. It's a solution of special hydrohardening resins, especially manufactured for use on a very dusty or porous sub floor or for creating a moisture barrier on a solid sub floor. For a dusty floor prepare as detailed as above. To use as a barrier against dampness or humidity: Clean the sub floor, removing any traces of oil, grease, wax and paint. Apply the first coat of **PUB77** diluted with 30% **DMC50** After 4 hours apply the 2nd coat of **PUB77** diluted with 20% **DMC50** After 24 hours apply the 3rd coat of **PUB77** diluted with 10% **DMC50** The timber flooring can be fitted 24 hours after the final coat of diluted **PUB77** has dried, using either **EP501** or **PUR164**.

DMC50 is thinners that can be used for cleaning tools and any accidental spots on the face of the timber. DMC 50 can also be used with PUB 77 as a damp barrier or as a Primer

Finishing

Unfinished boards generally need a light sanding with a finishing orbital sander and 120-150 grit paper. Vacuum to remove all dust and then using a finish of your choice, seal the floor. We stock all types of sealant and they are as follows:

Treatex Hard Wax Oil: a base of natural sustainable material raw materials such as linseed, sunflower and jojoba oils, bees, carnauba and candelilla waxes. It is quick drying (2 coats in 3 hours) and more importantly cures in 24 hours.

Osmo Hard Wax Oil: a natural plant based product, easy to use, easy to apply. Ideal for domestic situations, it gives timber a rich waxed look and is very easy to maintain.

Todd's Hard Wax Oil: Ideal for commercial properties where a wax oil look is asked for. Contains white spirit so makes drying quicker. In some cases only one coat is required.

Oil Wood 119 Traffic & Super OP: 10% sheen, a new 3rd generation lacquer, a superb finish that has all the beauty of Oil but with the durability of a top grade lacquer. It is easy to apply using a brush, applicator, foam roller, paint pad or cloth, you will need to lightly abrade between coats with either 240 grit sandpaper or screen back disk, apply 2nd coat

with cloth or paint pad. 2 coats are sufficient in a domestic situation, 3 for commercial use. For a more matt look, use lighter coats, for a glossier finish apply slightly heavier coats

Todd's Fast Cure Cross Linking Lacquer: Ideal for Pubs, Bars and in areas where the down time is of the utmost importance. This Lacquer has a drying time of 1-2 hours and achieves 100% cure after 16 hours (subject to site conditions).

Master Finish: A very hard wearing 2 part water based polyurethane designed specifically for all wood floors subject to very heavy wear. Available in either a Matt or Silk finish

Barrier Seal: gives timber a richer colour, easy to apply and ideal for use in conjunction with Todd's Fast Cure.

WR100: A two component polyurethane matt primer (2:1 with DMC50) that is extremely hard wearing and resistant to yellowing. WR100 is easy to use and will give timbers, particularly Jarrah and Oak, a rich colour.

Ecomax: A two component (10:1 Component A/Component B), water based acrylic polyurethane, hard wearing, non-yellowing, matt lacquer. Has a good resistance to water, alcohol and cleaning products.

Maintenance

Always have a dust-attracting mat at entrance sites, this will prevent any sharp stones or dirt scratching the floor. In a domestic situation a California Mop is an easy use "must have"; it will keep floors clean and dust free. Use felt pads on the feet of furniture to protect the floor from excessive scratching. We do have a comprehensive list of maintenance products in stock and we will give you all the advice, help and products you will need to keep your floors looking good. In a commercial location a full maintenance schedule is available, in many situations the manufacturer of product sealing the timber will talk to and train the cleaning staff. Felt pads or other forms of protection need to be used on the feet or base of furniture to protect from excessive scratching of the floor. Heavy scratching will break seal of the lacquer causing damage to the timber by the ingress of dirt and moisture from cleaning.