

## Product Information - Solid Oak Flooring & Laying Guidelines

All our Oak flooring is from the species *Quercus Petraea* or *Quercus Robur*. Boards are supplied unfinished but filled around any knots and sanded, with stress grooves on the back for stability. We can offer flooring with or without a micro-bevel on the edges but our stock flooring does have a micro-bevel. Lengths are randomly selected and shrink wrapped into packs.

Name	Grade	Thickness (mm)	Widths (mm)	Lengths (m)	5mm T&G on all four sides	Pieces per pack
Montagny	All sound knots, heart tracks and small splits accepted.	14	<i>170</i>	0.6 - 2.3	yes	5
Montagny	All sound knots, heart tracks and small splits accepted.	20	<b>180/200</b>	0.6 - 2.3	yes	4/5
Rully	May have sound knots or cats paws, colour variations and occasional sapwood on the edges.	9	<i>80-140</i>	0.6 - 2.3	no	10
Rully	May have sound knots or cats paws, colour variations and occasional sapwood on the edges.	14	<i>90/110/130/150</i>	0.6 - 2.3	yes	5
Rully	May have sound knots or cats paws, colour variations and occasional sapwood on the edges.	20	<i>90/110/130/150</i>	0.6 - 2.3	yes	5
Givry	May have small sound knots or cats paws	9	<i>80-140</i>	0.6 - 2.3	no	10
Givry	May have small sound knots or cats paws	14	<i>90/110/130/150</i>	0.6 - 2.3	yes	5
Givry	May have small sound knots or cats paws	20	<i>90/110/130/150</i>	0.6 - 2.3	yes	5
Mercurey	All knots, colour variations and sapwood excluded	9	<i>80-140</i>	0.6 - 2.3	no	10
Mercurey	All knots, colour variations and sapwood excluded	14	<i>90/110/130/150</i>	0.6 - 2.3	yes	5
Mercurey	All knots, colour variations and sapwood excluded	20	<i>90/110/130/150</i>	0.6 - 2.3	yes	5

**Bold** = Stock Item

*Italic* = Special Order

Weight 20mm thickness = approx 15kg/m<sup>2</sup>

Please see the Laying Guidelines below for information on adhesives, finishes, site conditions and floor laying.

## Laying Guidelines

### Adhesives & Finishes

These products are used by trades people and private customers alike and offer excellent results when used with the solid Oak flooring. If you know what you want but don't live nearby ask us about having it delivered straight to your door.

#### Adhesive:

There are two main products offered here, one is a glue which is spread over the whole floor and grabs to as much of the back of the timber as possible (T54) ideally for use with a nice new concrete screed and the other adhesive is in the form of glue battens (T2/T52) and can be used in various situations as long as floor to ceiling height is not an issue.

supplier	product	size	coverage	price + VAT
Sika	T2	600cc	1.72m <sup>2</sup> @ 300mm centres	12.75
Sika	T52	600cc	1m <sup>2</sup> with underlay as guide	6.87
Sika	T54	13kg	20m <sup>2</sup> full stick down	81.25
Sika	T54 Trowel			4.38
Sika	T2 & T52 Glue Gun			30.62
Sika	T52 Underlay	1.5x13.3m	20m <sup>2</sup>	93.75
Sika	MB Primer (2 part)	10kg	20m <sup>2</sup> when mixed	99.83

#### Floor Finish:

The finish we keep in stock is the Osmo Polyx Oil which we find ourselves raving about. It's a blend of natural oils which is non-toxic, you can re-apply it whenever you need to top up the worn patches or just to feed the wood once or twice a year, it wears well, it has good water resistance and you can use it on floors, window frames, furniture, even table/worktops in the kitchen. It is simple to apply (even we can do it), it comes in various sizes and it's easy on the wallet! It's worth noting that the Osmo Wood Protector even makes it practical to have timber floor in the bathroom and kitchen as it provides an extra barrier against water damage and black moulds etc.

The Ronseal Wood Filler just does what it says on the tin (tube actually) and we like to keep it for emergencies.

supplier	product	size	coverage	price + VAT
Osmo	Polyx Oil	100ml	approx 1m <sup>2</sup> @ 2 coats (test pot)	3.00
Osmo	Polyx Oil	750ml	9m <sup>2</sup> @ 2 coats	14.00
Osmo	Polyx Oil	2.5litre	30m <sup>2</sup> @ 2 coats	43.13
Osmo	Wood Protector	750ml	6.3m <sup>2</sup>	11.00
Osmo	Maintenance Kit			15.00
Ronseal	Wood Filler	75ml	light	3.50
Ronseal	Wood Filler	75ml	medium	3.50
Ronseal	Wood Filler	75ml	dark	3.50



## **General Information**

### **Moisture Content and Deformation:**

As wood is moisture absorbent material it's moisture level varies with air humidity and temperature. For example:

- a. 50% air humidity and 20°C temperature average Oak floor will have 9% moisture content.
- b. 30% humidity and 25°C temperature the same Oak floor will have 5% moisture content.

Moisture level variation speed varies with type of wood. For Oak 2% increase of moisture (from 9%-11%) will take around 40 days (960 hours). For softer kinds of wood the same moisture level increase will take only 12 days (288 hours). This is one of the main reasons why Oak is so popular in flooring manufacture.

As air humidity changes so does the dimension of the wood. Typically, a 60mm Oak plank will become 0.15mm wider with every 1% change in it's moisture content. In other words, every 1% increase in Oak moisture will lead to 0.25% increase in width. The rate of increase in length will be about 10 times less, hence every 1% increase in Oak moisture would normally only lead to 0.025% extra in length.

### **Solid Hardwood Flooring and Under Floor Heating:**

There are no hard and fast rules about the suitability of under floor heating systems and timber flooring. It depends on many factors, ie timber thickness and width, U value, room geometry, air circulation etc. plus the design of a suitable heating system and the methods of laying and fixing the timber floor. It is advisable to speak to your architect, heating engineer and heating supplier about the compatibility of your heating system with solid wood flooring.

The key to suitability will be the moisture content of the timber and the site conditions. If these things can't be guaranteed then it may be worth considering an engineered floor, which is much more stable in varying conditions than solid timber and may not require such specific site conditions.

### **Site Conditions:**

Site conditions are extremely important and make all the difference to a timber floor as indicated above. The building works should be completed ie; all windows and weather protection in place, all decoration completed - no moisture from gallons of paint, tiling grout, plasterwork etc to evaporate. The overall fabric (walls & floors) of a building should be thoroughly dry (so there are no visible signs of moisture or condensation when heating is on) before bringing in any timber. If you have any queries at this stage about the readiness of your building please don't be afraid to call us!

For a new build project all wet trades (rendering/masonry etc) must be completed and dry (ideally to below 5% moisture content) and it is advisable to check all plumbing is watertight, before you even think of having the flooring delivered.



For retrospective fit of flooring in older properties consideration must be given to moisture in cavities and in external walls.

In upper floors there should be no moisture ingress at points of contact with external walls so use expansion gaps to avoid contact.

At ground floor level where soil or hardcore is exposed or where contact with block or brickwork occurs measures must be taken to ensure there is a sufficient moisture barrier in place (it can also be a good opportunity to insulate) and that the Damp Proof Membrane is intact before laying. Timber will absorb moisture (see Moisture Content and Deformation) and expand in these circumstances if the moisture is not prevented from rising or touching the timber. Even ventilated cavities can result in timber expansion because of the increased humidity.

#### **Main considerations:**

Any under floor concrete slabs/substrate should not exceed 2% moisture content (Concrete may take at least one month per 25mm thickness of slab). Concrete sub floors must be clean, dry and flat. A self-levelling compound can be used to correct any errors, but again, ensuring that it is completely dry before laying a timber floor.

Existing timber flooring, plywood or MDF floors should be in good structural condition, level, dry and free from rot or fungus. New timber joists, battens and supporting timbers should be kiln dried to 15% and under.

At the time of laying, ambient conditions should be within the range of temperature of 15°C to 20°C with a relative humidity of 40-60%.

The timber should be acclimatised in the room where it is to be laid, at the conditions expected for use, for at least two weeks if not longer. This means stacking the flooring and making sure that any packaging is removed with the end-grain exposed.

Expansion gaps should be left around the perimeter of the floor, these are usually concealed by skirting boards which you should fix after the floor has been laid.

Seasonal variations and the changes in levels of heating and ventilation may result in changes in humidity causing 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.

#### **Laying Information**

The method of laying a timber floor is determined by a few key issues; the existing conditions which are likely to be either over joists or concrete slab, building regulations which will examine floor to ceiling height and climate and stability. An additional consideration should be given to noise, both creaking (wood against wood) and noise transfer, at this point and any insulation/rubber pads should be fitted before fixing.

**Over Joists:**

These will be at ground floor level or as a suspended floor and will either be exposed or have an existing floor (sheet material or floor boards) laid over them. If at ground floor level then a moisture proof barrier must be in place before laying to prevent moisture uptake from open earth or hardcore in cavities and Damp Proof Membrane must be intact in external walls (see Site Conditions), even if an existing floor is in place. If the timber is going over an existing timber flooring please remember to locate cables, water pipes etc. before fixing floor down and especially before nailing.

We would suggest boards be fixed using either the secret nailing method or a full adhesive system. Secret nailing uses a gun and 50mm long serrated T nails which are fixed at 45° angles through the base of the tongue. This method can be used laying directly onto joists or onto existing floor boards, plywood or other sheet timbers.

If the flooring is fitted directly over joists then it should be laid at 90° to the joists and nailed at each joist. If it is fitted onto an existing floor then it should also be laid at 90° to any sheets or boards and nailed at 300mm centres.

If boards are wider than 160mm it is advisable to use an additional method of fixing of the faces of boards such as screw and pellet fixed to or adhesive (see our Sika brochure for more information) both of which will fix the face more firmly to the joists or the existing floor.

Adhesive systems vary from one supplier to another. We keep the SIKA brand of glue system which allows for full stick downs or glue batons depending on the siting. The full stick down is mostly used on flat concrete slabs and for underfloor heating applications. The glue baton system is more flexible can be used in most situations, joists or slab.

**Over Concrete Slab:**

The Concrete should be a dry, clean, level surface (see Site Conditions) containing a damp proof membrane or some kind of moisture barrier.

Then the timber floor can be laid either directly onto the concrete, onto a sheet timber floor fixed (screwed or glued) to the concrete or onto battens fixed (screwed or glued) to the concrete with whichever adhesive system is preferred.

However, secret nailing can only be used to fix the timber floor to sheet timber floor fixed to the concrete or to battens fixed to the concrete and then using the same method as for over joists.

The same considerations should be given as before to boards over 160mm wide.

**Finishing:**

Unfinished boards generally need a light sanding to remove any irregularities in thickness and then the boards will be ready to accept any finish that is required. We do keep a supply of Osmo Polyx Oil and some other Osmo products but there are a great variety of products available from most DIY stores.



## Care Information

### Door Mats:

Keep dirt and grit coming in from outside by using walk on mats at all exterior doors. Always use a dust attracting mat at entrance sites, this will prevent any sharp stones or dirt scratching the floor.

### Dirt and Grit:

It doesn't matter what finish you use on your floor it is important to remember to dust sweep and vacuum the floor regularly. **Dirt and grit have an abrasive effect and will destroy the protective surface of your floor.**

### Floor Protector Pads:

All moveable pieces of furniture should ideally have soft, clean pads on the bottom of legs or supports.

### High Heels:

High heels concentrate a person's weight on a small point (estimate: 2000lbs per inch for a person weighing 125lbs) . This kind of force can dent and pit solid wood floors, fracture ceramic tiles and perforate vinyl. While high heels in good repair may not damage wood floors we recommend a 'no heel' policy.

### Pets:

Dogs and Cats toenails can scratch a wood floor so it is a good idea to trim them regularly and try to contain vigorous play to a carpeted area. Some Swedish type finishes and urethanes are essentially waterproof which is ideal for a household with pets where pet urine and spillage from food and water bowls may be a problem as these finishes will protect the floor if cleaned up immediately.

### Area Rugs:

Some of the areas of the house experience more wear than others. Kitchens (especially in front of sinks) always have a lot of traffic. Area rugs can be used to protect these areas as long as they are kept clean and dry. Shake them out and vacuum regularly to avoid the build up of dirt and grit.

Something to remember when using rugs on a wood floor is that the colour will change over time, usually darkening due to UV exposure. Laying rugs down means that some areas of the floor are exposed to UV light and some are not resulting in patches of different colour wood. Once exposed to UV light these patches will eventually blend together. This can be avoided by moving the rugs often or finishing the floor with UV protection.

### Moving Heavy Furniture or Appliances:

It is advisable to lift heavy furniture rather than slide it across the wood floor. Hiring a furniture dolly with soft rubber wheels or an air sled is an ideal solution. Floor guards or castor sets will enable you to move your appliances forward for servicing without scraping the floor.



**Indoor Plants:**

Potted plants should ideally be placed on trivets or with short stands under the pot so that air can circulate underneath and never directly onto a wood floor even if they are on a glazed saucer. This will prevent condensation that builds up on the saucer from causing damage and it is also easier to see if the plants have been over-watered and if anything has spilled onto the floor.

**Scratches:**

The most important thing to do about scratches is to find out what caused them. Figure it out and take some preventative measures to remedy the problem.

The information we have provided should be used as a guide only and professional advice should be sought before making a purchase or proceeding to lay a floor.