

## **Engineered European Oak Flooring – Information Pack**

### **Engineered Flooring Specification**

Thank you for choosing a Bespoke Hand Finished European Oak Flooring finished by craftsmen of Timberzone using both modern and old fashioned techniques.

This Information Pack contains important and essential information regarding your Engineered European Oak Flooring.

Please read the documentation thoroughly to ensure you will receive the best service from your chosen floor.

#### **Technical Specification – All products**

Oak Type = European Oak

Oak Source = Central European

Plywood Type = WBP Birch Plywood

Plywood Source = Russia

Product Moisture Content = Between 7 – 9%

Length Specification = Minimum 80% between 1.8 – 2.8M, maximum 20% between 0.3 – 1.5M

Jointing system = Tongue & Grooved all 4 edges

Edge profile = Bevelled 2 long edges only (standard) or Square edged / Bevelled all 4 edges

Sustainability: FSC

#### **21mm Product Specification**

Top layer thickness = 6mm (+/- 0.5mm)

Plywood thickness = 14.5mm (+/- 0.5mm)

Overall product thickness = 20.5mm (+/- 0.3mm)

Widths available = 140 / 160 / 180 / 200 / 220 / 240 / 260 / 300mm

Grades available = Prime, Select, Natural

#### **16mm Product Specification**

Top layer thickness = 4mm (+/- 0.5mm)

Plywood thickness = 11.5mm (+/- 0.5mm)

Overall product thickness = 15.5mm (+/- 0.3mm)

Widths available = 140 / 160 / 180 / 200 / 220 / 240mm

Grades available = Prime, Select, Natural

### **13mm Product Specification**

Top layer thickness = 3.5mm (+/- 0.5mm)

Plywood thickness = 9mm (+/- 0.5mm)

Overall product thickness = 12.5mm (+/- 0.3mm)

Widths available = 140 / 160 / 180 / 200mm

Grades available = Prime, Nature, Rustic A/B (Character)

### **Grade Rules – All products**

Prime Grade

Knot content = Only pin knots up to 5mm diameter allowed, limited to 3 knots per board

Other defects = No bark pockets, splits or worm hole allowed

Sap content = No edge sap allowed, limited core sap to 5% of total volume

Colour = Natural variation allowed, no dark heart wood allowed

General description = Clear grade with only a very rare occurrence of any pin knots at all

Select

Knot content = Healthy knots up to 20mm diameter allowed,

Filled cracked knots up to 20mm diameter allowed,

Filled dead knot holes up to 10mm diameter allowed,

Total number of knots limited to 3 per board

Other defects = No bark pockets, splits or worm hole allowed

Sap content = No edge sap allowed, limited core sap to 5% of total volume

Colour = Natural variation allowed, no dark heart wood allowed

General description = Very light character grade with some smaller knots on approx. 40 – 60% of the boards

Natural/ Rustic

Knot content = Healthy knots up to 55mm diameter allowed,

Filled cracked knots up to 55mm diameter allowed,

Filled dead knot holes up to 20mm diameter allowed,

(Replacement knots may be used on larger dead knot holes)

Total number of knots unlimited

Other defects = Limited small bark pockets allowed,

End splits up to 1mm in width and 100mm in length allowed, limited to 20% of total volume

No worm hole allowed

Sap content = Edge sap allowed limited to 30% of the width of the board,

Limited core sap to 15% of total volume

Colour = Natural variation allowed, small amounts of dark heart wood allowed

General description = Standard natural grade with a nice selection of natural knots and defects.

*Please note that wood is a natural product and up to 5% of the material provided may not adhere to these grade rules. If you require further clarification on what the grade will look like please ask for further reflective samples.*

### **Important Facts to note when buying a Hand Finished European Oak Flooring**

The traditional techniques used involve Distressing, Fuming, Brushing, Ageing, Scraping, Burning, Staining etc. These techniques are not done using high volume machine produced automation from Chinese Factories, our techniques are traditional and done caringly board by board individually by hand. Due to our traditional hand finished nature of our production there are a few things needed to be noted:

#### ***Distressing of the wood***

If your wood has been distressed to give the appearance of 'old, worn and an already lived on' look, the process we use does distress the whole board including the 'Tongue' and the 'Groove' part of the board. This means extra time and patience need to be allowed in the fitting process in order to achieve a fully 'tight' joint between planks.

Distressing of the wood will cause some of the top part of the oak to split and break off. This is a natural part of the manufacturing process and is an aspect of the character of the final flooring finish. This form of processing only lends itself to the 21mm thick board, so is not available on the thinner 13mm and 16mm boards. When fitting a distressed floor, it is down to the skill and expertise of the fitter to utilise these pieces and determine which pieces to use and where and which parts of the plank to not use in order to achieve a truly fabulous looking old floor.

Please ensure you only use a fully competent fitter experienced in fitting bespoke hand finished flooring. Distressed flooring may appear damaged when viewing an individual piece, this is normal and is part of the process of a distressed floor.

If you are specifying Chevron blocks, the points will be rounded off during the process.

#### ***Fuming of the wood***

Fuming is done to the wood to gently age the wood and give the wood the appearance the wood is old, the more we fume the wood the older the wood looks. This is a completely natural reaction with the Tannins in the wood. Some parts of the oak will react more strongly than others with the fuming process, therefore colour variation is to be expected.

It is down to the skill and expertise of an experienced fitter to fit a floor that has been fumed to ensure each piece is chosen and laid sympathetically to create an overall aged look to the floor.

#### ***Scorching of the wood***

Scorching of the oak surface is another technique we use to create a very aged oak floor. The scorching is done by hand applying a very hot flame across the oak face board by board. Please be aware the scorching is done in such a way that once fit correctly the appearance is very natural and

gentle. Please also note there will be some inevitable scorching to the tongue of the board.

### ***Backscraping of the oak***

Backscraping is done by hand using traditional tools by a craftsman board by board. The craftsman will 'scrape' and 'tear' the face of the oak in a very sympathetic way generally around the knots or grain orientation change within the oak. Each board will be 'Scraped' differently depending upon the grain structure in each plank. Some boards will be more heavily scraped than others but will always be a completely natural effect, some grain tear and chatter is to be expected.

Please ensure the fitter is completely comfortable and competent when fitting a hand scraped plank.

### ***Soft Grain Brushing***

Soft Grain Brushing is done to simulate gentle weathering of the oak surface. Please note that during the brushing process of each batch, each board is brushed exactly through the same process. Please note that different parts of the oak tree are harder for example the 'heart wood' is much harder than the outer rings of the tree therefore the effect of brushing will be different on each plank. The knots are much harder than straight grain so brushing effect will reflect this. This is a completely natural process performed on a natural material hence subtle variation between pieces will occur.

It is also a common by-product of the brushing process that some areas of filler may be removed and therefore will not be present in the finished floor.

Please ensure the fitter is completely comfortable and competent when fitting a Soft Grain Brushed plank.

### ***Packing our Hand Finished Floors***

All of our production is done completely by hand, board by board and that also includes the packaging of our planks. Your flooring will arrive to your site in 'Bundles' packed together by plastic strapping. Any exposed pieces of the oak face will be 100% plastic shrink wrapped by hand. Please be aware that packaging of Hand Finished Floors is traditional to 'Bundle' the floor in plastic strapping. This method creates a lot less waste of discarded cardboard and plastic and is better for our environment.

### ***Colour Variation Of Wood Flooring***

Wood is a natural material and will have variations from board to board and even within a board, not only in the visual features such as grain, knots and growth rings, but more subtly in the mineral density and fibre density ratio in the exposed wood surface. This natural variation in the wood responds to the process reactions during the manufacturing process whereby the speed of the reactions (e.g. fuming reactivity) and/or the stain absorption saturation point can give rise to variation in hue and density of the observed colour. The result is a distribution or range of colours and tones around a central median colour.

Subtle variations between individual trees and different parts of the same tree can result in different ranges of colour hue and density, and also a difference in the median colour of a board exposed to the same production process.

Any batch of flooring will in all probability be constituted from more than one tree. The full run of supplied flooring will not only have a wider distribution of colour hue and density than a limited selection shown on a sample panel, board or swatch, but may have multiple distributions of colour hue and density overlaid on a range of median colours.

Indeed, a sample panel, being a sample will not exhibit the extremes or full range of the variation in the colour. Examples of how this might appear could be:

- Placing a board against the sample, the board may appear lighter, darker or have a different hue or density in colour
- Two boards placed side by side could have a different median colour
- Within a board, the colour may vary (e.g. in the vicinity of a knot)

This is the natural variation as expected from a natural material. The median colour of the sample will reside within the full colour range of the production batch.

The colour variation due to the production process is minimised by treating each order as a single batch and running all of the boards through each process stage contiguously.

## **Installation Requirements**

### General

In order for your Engineered Flooring product to perform to standard expectations the following conditions must be in place:

It is recommended that the engineered plank flooring should be installed by means of direct gluing to the subfloor, however 21mm thick engineered flooring can be directly nailed to joists if they are at 400mm centres or less. This product can be laid as a floating floor but this can result in some spring within the floor, reduce efficiency of under-floor heating performance and lead to the requirement of very large expansion gaps if the floor area is larger than 5 metres in width. Therefore it is expected that this flooring will be glued down when installed on underfloor heating.

### Environmental conditions

All major building work including plastering, decorating and kitchen fitting must be completed prior to fitting the new flooring.

The bundles of flooring shall be stored in a protected dry place on site where the flooring is to be laid. The bundles should ideally be allowed to acclimatize to the room environment for at least 48 hours prior to installation.

Each board should be carefully checked prior to installation, do not install any damaged boards. During installation the temperature of the subfloor should be at least 15°C

During installation the ambient temperature of the room should be around 20°C

During installation the relative humidity of the room should be between 45-65%, ideal is 55%. The subfloor should be clean, dry, absolutely flat and free from any cracks or movement.

Irregularities on the subfloor should not exceed 3mm over 1 metre in any direction.

Subfloors should not exceed the following humidity levels:

- Cement = no more than 2%
- Wooden = no more than 10%
- Anhydrite = no more 0.5%

If the moisture reading is high on a cement based subfloor then you must apply a liquid DPM

If you are using the floating method you must install a vapour barrier of at least 0.2mm thickness and to tape the joints.

In order for your product to perform adequately for years to come it is important that the relative humidity and temperature parameters detailed above are consistent within the property at all times. On some occasions properties with poor ventilation or very high levels of heating and insulation can have very low relative humidity levels, particularly during colder months. In this situation there is a risk of shrinkage and possibly even structural deficiencies within the product, therefore a re-humidifier would be recommended. Feel free to contact your supplier for further information.

If you are laying the planks directly onto load bearing joists then you must use both flexible adhesive and portanails to secure to each joist.

If you are laying the planks onto an existing floorboard subfloor then you must ensure that each of the existing floorboards are independently fixed securely to the joist below with no independent movement. If the floorboards have an uneven surface then correct levelling needs to be done prior to installation either by levelling the joists or for minor unevenness using a sheet material could be sufficient. If the engineered flooring is to be laid in the same orientation of the existing floorboards then sheet material must be fixed down first. Sheet material must be screwed down every 15cm in both directions.

An allowance of approximately 15mm around the perimeter of the room should be provided to accommodate any expansion, including under door frames, central heating pipes and connection with tiles.

Bigger rooms will need bigger expansion gaps, please allow a further 2mm expansion gap for every 1 metre of floor width greater than 5 metres.

For direct glue down installation flexible flooring adhesive must be used and the manufacturer's recommendations must be followed, never use a rigid or water based glue.

A minimum of 30cm distance between one header joint and the other of the next row shall be applied when arranging the installation.

Chevron flooring requires attention to the alignment of the points of the blocks. Any misalignment cannot be subsequently corrected.

In the case where we are not installing the flooring, the responsibility for the correct specification of all aspects of the flooring, including measurements and wastage allowance calculation, the verification of the initial and final conditions will reside with the client detailed on our invoice, it is our strong recommendation that these specifications are checked by the person responsible for fitting the flooring.

---