EVERYTHING YOU SHOULD KNOW BEFORE BUYING A WOODEN FLOOR
Buying a wooden floor is not always an easy process. From how the floor looks to the technical aspects and correct fitting procedure, there are plenty of areas worth serious consideration.

That’s why we have put together this guide for you. It will help you to not only better understand the complex world of wood but also to avoid making a costly mistake along the way.
**Solid & Engineered**

**Solid**
Each board is made from a single piece of wood (1 layer). Solid boards consist of a thicker layer of solid wood when compared to engineered boards, making it a better option if we plan to re-sand the floor in the future a few times. Generally speaking, we do not recommend sanding back our pre-finished platforms because this will erase the patina, instead we recommend regular aftercare to maintain the beautiful patina.

**Engineered**
Engineered flooring means a multi layered floorboard, constructed of solid oak for the top layer and Plywood, Softwood or Hardwood strips for the ‘engineered section’ with a softwood/hardwood base. The purpose of this production is to create a more stable wood flooring product, as wood is a natural product it will shrink and expand throughout the year and this can cause problems if not dealt with correctly.
**IS THE BIRCH PLYWOOD IMPORTANT?**

Our brand of Birch Ply is WBP – Water Boiled Proof. Which means you can submerge it in boiling water for 30 minutes with peace of mind and zero de-lamination, which is vital for longevity and internal moisture and temperature changes, which means a guaranteed peace of mind with underfloor heating and demanding locations such as the bathroom and the kitchen. Cheaper Birch Plywood and Softwood Plywood would usually fail in such demanding environmental conditions.

We harmoniously match the same specific weight per m3 with our top layers and our solid Birch Ply base. The acoustic values for both sections of the board match to produce the same high quality sound when walked upon which is equal to our traditional solid floorboards.
American barns, Stone caves, French country homes and Victorian factories are just a few of the unusual and intriguing places from where the Reclaimed wood is sourced. Shaped by the passage of time rather than the hand of man this collection is the foremost expression of timeless quality and natural artistry.

**IS RECLAIMED FLOORING DIFFERENT TO NEW SOLID WOOD FLOORING?**

Because for the most part reclaimed wood comes from trees at least 200 years old, the grain is tighter, the wood more durable and stronger. These trees were ‘slow grown’, unlike today in our globally managed forests where trees are generally grown a lot faster and so their growth rings are farther apart.
Wall cladding is a current major trend in the design community. Restaurants, hotels and offices all benefit from a stunning feature walls while residential properties can easily turn a blank wall into a bespoke creation. Mixed width, new or reclaimed multi-coloured cladding is an excellent way to invite a sense of nature into your home.

Make a statement with wood.
MOST COMMON STYLES

- Basket Weave Pattern
- Wooden Planks
- Herringbone Parquet
- Chevron Parquet
- Chantilly Parquet
- Versailles Parquet
Parquet

As a long-standing symbol of craftsmanship and design there is no greater statement floor than parquet. The most popular parquet patterns are Herringbone and Chevron flooring. They are all laid in individual pieces which then have a border constructed using the same blocks or planks finished in the same colour. The grand French Parquet de Versaille is also a popular pattern. This type of parquet is construed in 1m² panels with a border using the same material in plank form.

Engineered parquet is designed to be compatible with under floor heating and can be made in several different sizes and colours. Reclaimed parquet can also come in different sizes and shapes and because each batch is slightly different the colour and texture will vary.
FLOORING STYLES EXPLAINED

Wide Plank:
Wide plank flooring has been a long-standing symbol of elegant, timeless flooring. Although wide plank flooring is a hallmark of traditional Georgian design it is by no means restricted to antique finishes. Any tone on a wide plank floor adds an unmistakable element of design and craft. Stretched beautifully across a room this type of flooring is a stand out feature in any space.

Narrow Plank:
Narrow Plank or Strip Oak flooring is a modernist revival perfect for adding a distinctive design trait without overwhelming the overall composition of the space. When finished in a clean raw oak tone this style of flooring is an excellent compliment to the minimalist, modern interior. However, finishing the floor with a rich traditional stain has equally striking results with a more dramatic effect.
FLOORING STYLES EXPLAINED

Surfaces Undulation:

One of the most beautiful traits in a reclaimed floor is the delicate, fine tuned undulation that is created through the passage of time. Solid wood will expand and shrink over many years leaving the surface of wood altered with the imprint of time passed. This is one of the most prized aesthetics when choosing a reclaimed floor and true hallmark of its authenticity.

Although it takes many decades for wood to change and adjust its shape our specialised Castle platform uses new wood to mimic this old effect. Each one of our Castle boards is hand shaped to reveal a slightly curved surface on either engineered or solid wood. The overall effect is both striking and in keeping with the look of traditional timbers.

This type of new wood platform is especially good for period home renovations that are using under floor heating systems. The engineered platform ensures stability while the hand shaped curved surface creates the effect of natural solid wood undulation.

CASTLE PLATFORM (UNDULATED SURFACE) - SOLID

CASTLE PLATFORM (UNDULATED SURFACE) - ENGINEERED
UNDER FLOOR HEATING (UFH) EXPLAINED

I- TYPES OF UNDERFLOOR HEATING
THE TWO MOST POPULAR FORMS OF UNDER FLOOR HEATING SYSTEMS ARE:

ELECTRICAL MATTING SYSTEMS

These are actually the most popular UK systems because they are easier to fit. Hardwood engineered floating floor sits directly above the matting, which is wired via a thermostat. Even heat distribution is essential as these systems are less prone to 'hot spots' that could potentially cause problems with your engineered floor such as de-lamination.

HOT WATER PIPE SYSTEMS

This is very similar to your central heating system. A screed is generally used to house the pipes. Before fitting the floor, all screeds must be checked so that the relative humidity of the concrete has reached 75% or below. The most accurate way to test this is by drilling into the screed and inserting plastic plugs. After 24 hours you can return to then take readings.

**Installation can only begin once the level of relative humidity has been reached, and the under floor heating system has been fully tested and has been working for 2 weeks.

There are many brand names of UFH systems available, make sure that you follow their instructions and advice as each system may have slightly different terms and conditions.
UNDER FLOOR HEATING (UFH) EXPLAINED

2- FITTING YOUR ENGINEERED FLOORING FOR UNDERFLOOR HEATING

This should be left to qualified installers recommended by the manufacturer of the UFH system. You must have “flow” control valve to ensure that the temperature never exceeds 27 degrees Centigrade where the wood floor meets the screed or underlay.

Prior to installation, the installer/owner has the final inspection responsibility as to grade, manufacture and factory finish. The installer must use reasonable selectivity and hold out or cut off pieces with deficiencies, whatever the cause.

Use of stain, filler or putty stick for touch-up during installation should be accepted as normal procedure.

You must test the relative humidity of the environment the floor is to be laid in and also the moisture content of any sub floor or screed must be less than 4%.
Many types of engineered wood flooring are suitable for use with under floor heating (and cooling) – BUT NOT ALL. If in doubt, the first step is to consult a Specialist Supplier, the Timber Research and Development Association (TRADA), British Standard 8201:1987, or all three, as to the characteristics of the type in question.

Generally the temperatures should not vary drastically.

The UFH should never be turned off, just kept at a very low temperature.

Always try to avoid taking the floor from one extreme of heat and humidity to another within a very short time-scale.

Ideally the room temperature should be 20 degrees Celsius and not lower than 18 degrees Celsius.

The air relative humidity should be between 35% & 60%.

If you turn it back on to full heat, this will “shock” the wood flooring and could cause lifting or the top layer of engineered boards de-laminating. The maximum temperature of the wooden floor should never exceed 27 degrees Celsius to avoid excessive drying-out problems, which can cause stresses in the wooden floor.

A word of caution – the addition of carpets on wooden floors can add considerable heat to the temperature between floor and carpet. Thus to achieve a 27°C floor surface temperature (75 W/m² output) may require water pipes to operate at a lower temperature.
4- How to avoid potential problems with wooden floors and UFH

Most of the problems associated with wooden floors and UFH come from the following conditions:

- The lack of correct heat distribution, dramatic changes in the surface temperature: HOT SPOTS.
- Cleaning the floor with water and not a damp mop with the correct cleaning products.
- A high humidity in the room operating the heating above a surface temperature of 27 degrees.
5 IMPORTANT QUESTIONS
BEFORE BUYING A WOODEN FLOOR
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<th>Question</th>
<th>Answer</th>
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<td><strong>1. Where was the floor manufactured?</strong></td>
<td>When buying a wood floor remember to ask not only where the wood comes from but also how and where it’s manufactured. Quality materials and construction will determine the longevity of your floor and these few simple questions could save you a major headache (if not a heart attack) in the long run. Many of our WPB birch ply engineered boards not only possess great quality but they also create the illusion of real, solid wood. With that in mind, it’s always good to ask not only the source of the wood but also where the boards are constructed. For example, not all engineered boards are suitable for underfloor heating due to cheaper substrates.</td>
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<td><strong>2. Is your floor in compliance with the EU safety standards?</strong></td>
<td>All wood naturally contains levels of formaldehyde. The issue is the rate of release in parts per million. Our plywood is class E1 (0.1ppm) which is in complete compliance with EU safety standards. The UK allows for 2.0ppm as safe for use! (much higher). Additionally, cheap overseas manufacturing sometimes uses softwood ply. This type of engineered board not only has higher concentrations of formaldehyde which is not only harmful to the environment but can also be harmful to personal health especially to those who are chemically sensitive. In 2011, the National Toxicology Program from the US, described this cheap adhesive as “known to be a human carcinogen” due to its high levels of toxicity. However, despite the well documented adverse effects, many companies use cheap production processes in order to reduce the costs of their engineered wooden boards.</td>
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<td><strong>3. Is the plywood water &amp; boil proof?</strong></td>
<td>Underfloor Heating is a major factor when choosing a wood floor. Wood is a living material, it expands, shrinks and reacts to the environment. Using an engineered board is essential when fitting over under floor heating but not all engineered boards are equal in quality and construction. The best-engineered platform available on the market uses a high-quality European birch ply bonded with a natural, formaldehyde-free glue that is not only safe but WBP (water and boil proof) tested. Overseas manufacturing commonly uses softwood ply. This type of cheaply produced engineered board is, in most cases not suitable for under floor heating.</td>
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In our humble opinion, the look of a hard waxed oiled wood floor is unrivalled, as is its tactile feel. A penetrating oil finish does not sit on the surface of the wood but rather sinks into the grain. Consequently, when you walk barefoot on an oil-finished floor, your feet are in direct contact with the wood. If you chose a surface treatment such as a Lacquer, on the other hand, there would always be a layer of plastic between you and the wood.

UV-dried oils are the industry standard in order to save time and money, they look ok but not as rich or natural as an air-dried hard wax oiled finish. What most customers don’t know is the end result is more comparable to laminate style flooring. UV dried boards not only look overly glossy but the surface colour appears so thick that it overpowers the natural beauty of the wood below. The bond between wood and oil is also less stable because the oils have not had sufficient time to penetrate the pores of the wood, instead they bond only to the surface of the wood. Air-dried oils require a minimum of 4 hours drying time between coats and for this reason many of the larger companies are simply unable to offer this quality of finishing to their finishing lines.

Lacquer is another solution, it looks good initially but only for a short time. A lacquered floor cannot be touched up locally but rather any damage requires the floor to be completely re-sanded and coloured again, a costly and messy option. There are a few specialist water-based lacquers on the market that are marketed as lacquers that ‘behave like oils’, while this statement is impressive we are not confident that water can really behave like an oil.

Air-Dried Oils are the solution, this 8-12-hour process will not only create beautiful results, but will also protect the board for a longer time. This process produces a more organic and natural colour result and helps to maintain the overall health of the wood. The first coating creates the first bond and seal to the timber, then the second coat is applied to sit on top of the first coat for extra protection, this is why we rarely use ‘one coat systems’.

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Reclaimed

There are various grades of reclaimed wood, all from different time periods and from different backgrounds. It is important to consider wood infestation, chemical contamination, wood durability when specifying reclaimed wood for a project. It is also worth considering the quantity of timber available against the expected delivery date for the project. Unless reliable supplies are established for a particular reclaimed wood floor, where the grade and specifications have been carefully considered it is likely that every batch of wood will be completely different. Samples approved in month 1, ordered in month 4 and then delivered in month 6 may not all be from the same batch which may cause problems for the end user.

With regards to the age of the timber, there is a big difference between reclaimed timbers that are 1 year old, 10 years old, 100 years old or over 300 years old. It has been known that re-sellers of reclaimed timbers are unable to offer such specification details such as the aged of the wood and the area it was reclaimed from, this again can lead to confusion when specifying and comparing patina variations.

5. Do you know the source of the wood?
These days to say ‘European Oak’ is over used and a vague description. When researching where your oak is from, it is really important to know more about the land geography & climatic conditions rather than the specific country itself. For example, did you know that not all French oak is beautiful? Or that Polish oak tends to have a weak grain and lack of character?

We only source ‘European Mountain Oak’, which means that the trees are slower grown due to the soil nutrition in these areas, lack of water in the soil and the climate. If you compare our Mountain Oak grade to ‘river grown oak’ you will see instantly that they appear to be different species all together.

The secret to sourcing our specialist grade of oak which is ideal for wood flooring production, is to make sure that we harvest from a climatic band which runs all the way from East to West and passing through many different European countries. Within this band, between set latitudes we tend to find more oak trees, with a stable character, rich grain pattern and stable tannin levels which enable us to create the finest oak floors available.