Consumer Information Service

A Consumer’s Guide to Laminate and Wood Flooring

The Flooring Guild is dedicated to raising standards in the flooring industry through the delivery of high quality training and education. We believe Consumers should be given unbiased information to help make an informed choice and have produced a series of guides to help in that process.

The contents of each Guide are believed correct at the time of printing. Nevertheless, The Flooring Guild cannot be held responsible for any errors or omissions or for changes in the details given in this Guide or for the consequences of any reliance on the information provided in the same.

Although every effort has been made to ensure accuracy, we will always welcome any information to assist in such efforts and to keep the Guides up to date.

We gratefully acknowledge the information given by various contributors including:

Gründorf (UK) Ltd
Kährs UK Ltd
Margaritelli Group
Mays Carpets Ltd

All Rights Reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any other information storage and retrieval system, without prior permission in writing from The Flooring Guild.
## Consumer Information Service

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHOOSING THE RIGHT WOOD FLOORING</td>
<td>1</td>
</tr>
<tr>
<td>SOLID WOOD FLOORING</td>
<td>1</td>
</tr>
<tr>
<td>ENGINEERED PARQUET FLOORING</td>
<td>1</td>
</tr>
<tr>
<td>WOOD VENEER/VENEER PARQUET FLOORING</td>
<td>2</td>
</tr>
<tr>
<td>LAMINATE FLOORING</td>
<td>3</td>
</tr>
<tr>
<td>SELECTION IN TERMS OF GRADING, STYLE AND CHARACTER</td>
<td>4</td>
</tr>
<tr>
<td>INTERIOR DESIGN AND AESTHETICS</td>
<td>5</td>
</tr>
<tr>
<td>Colour and Design</td>
<td>5</td>
</tr>
<tr>
<td>TYPES OF WOOD AND THEIR PROPERTIES</td>
<td>6</td>
</tr>
</tbody>
</table>
CHOOSING THE RIGHT WOOD FLOORING

In this section we will look at the criteria for selecting the right flooring.

To begin with, we need to be aware that the term "wood" flooring is often used to describe a wide variety of products.

These range from solid blocks or planks of "real" wood right through to "man-made" floors designed to look like wood – at least to the untrained eye!

In addition to optical and aesthetic considerations, it is important to bear in mind the floor’s specific use.

This may indicate that a particular floor type would be more appropriate for your particular circumstances.

This section will describe the more popular types of wood flooring and explain their characteristics.

SOLID WOOD FLOORING

Solid wood floors are available in different thicknesses, from approximately 7mm to 22mm, depending on each manufacturer.

Each board is 100% timber cut out whole from the trunk.

For use as floorcoverings, the timber is artificially dried, cut and planed to the desired dimensions in width and length. The board edges are precision milled with tongue and groove construction so that each piece locks firmly into place.

The solid wood floor boards are available in strip or plank form, with bevelled or square edges, finished or unfinished in a wide variety of species. Solid wood needs to be nailed or fully glued as per the manufacturer’s installation instructions.

- **unfinished** flooring must be job-site sanded and finished after installation by applying, for example, an oiled or lacquered finish.

- **pre-finished** flooring simply needs installation.

Solid wood flooring is generally produced in plank or block form (used to construct geometrical patterns composed of individual wood slats held in place by mechanical fastening or an adhesive).

ENGINEERED PARQUET FLOORING

This type of flooring is still classed as solid hardwood but is an industrially, finished surface-treated floor element made of wood or a combination of wooden materials.

These are not to be confused with "laminates" which are described below.
Engineered parquet floors consists of at least two or three layers made up from various woods or different grades of the same wood stacked and glued together under heat and pressure.

The materials and thickness of the different layers vary according to the manufacturer’s ranges. Three layers lock the movement of the wood. The layers are listed below:

- **Top layer** - hardwood with the grain running the length of the board
- **Middle layer** - intermediate material of cross-laid timber to restrict the wood’s movement
- **Bottom layer** - grain running the length of the board

Three-layer construction is based on the principle that wood swells more across the grain than along it. By putting together three different layers of wood at an angle of 90° to each other, a laminated construction is formed in which the three layers counteract each other’s natural movements.

For dimensional stability, this construction is deemed to be the best.

The movement of the wood is considerably decreased, although the need to acclimatise any natural wood flooring on site is an important factor in achieving a successful installation that will stand the test of time without undue shrinkage, gaps appearing or expansion causing bowing etc.

By using a very precise drying process, movement is decreased further and the use of expansion gaps allow for further movement between the floor and the walls.

Therefore, this type of flooring is less likely to be affected by changes in temperature and humidity.

Engineered wood flooring is generally thinner than the solid counterpart, allowing its use in those areas where any addition to the floor level could incur the cost of new skirtings etc. Most engineered wood flooring can be sanded and refinished as the wear layer is normally several millimetres thick.

It comes in many forms, ie wide plank, strip, herringbone parquet designs, square and rectangular panels and in a wide variety of species and finishes. Glueless click and joint locking versions are available. The engineered floor is ‘floating’ and, as such does not need nailing or glueing to the sub-floor.

This type of construction looks just like solid wood but has the additional advantage of allowing our precious hardwood resources to go further.

**WOOD VENEER/VENEER PARQUET FLOORING**

This flooring consists of a wood veneer of approximately 0.6mm. The base-board is a HDF (high density fibre) board of the same type used for laminate floors with a counteracting balance kraft paper layer.
LAMINATE FLOORING

There is still some confusion over the differences between the types of laminate as, in its literal sense, the term applies to both engineered wood flooring and the melamine-on-HDF décor product known laminate flooring. However, the flooring industry in general is in agreement that the term 'laminate’ means the latter.

Laminate floors come in innumerable qualities generally 6-9mm thick. Only the manufacturing principle is the same. There is a surface layer of fibrous material supported by a baseboard and the product is usually finished with a backing primarily used as a balancing material. Each manufacturer will vary the number of component parts and material used according to specific end uses and price points.

Surface Layer: The surface layer consists of one or more thin sheets of a fibrous material (usually paper), impregnated with aminoplastic, thermosetting resins (usually melamine). These sheets are either pressed as such (HPL, CPL or Compact) and, in the case of HPL or CPL, are bonded on a substrate (usually wood-based panels) or, in the case of DPL, directly pressed on a substrate (usually wood-based panels).

HPL (High Pressure Laminate) is a product with a surface layer made from decorative high pressure laminate.

CPL (Continuous Pressure Laminate) is a product with a surface layer made from continuously pressed laminate.

DPL (Direct Pressed Laminate) is a product with a surface layer made from laminates fabricated in a short-cycle press process.

Core layer: Quality laminate flooring is produced using HDF (High Density Fibre Board) baseboard.

This is similar to MDF (Medium Density Fibre Board) but it performs to a higher standard when used for flooring and is much more stable. The difference between the two is the pressure and material used during the manufacturing process.

Stabilising layer: Backing layer of the laminate flooring usually made from HPL or CPL papers. The underlay serves primarily for the stabilisation of the product. Additionally, it serves as a moisture barrier.

Please note: Some laminates come with no guarantees and generally should be avoided for obvious reasons. Laminates from quality manufacturers may come with a manufacturer warranty against fading, stains and wear of between 10 and 25 years. Please refer to the manufacturer for warranty periods on specific products.
**SELECTION IN TERMS OF GRADING, STYLE AND CHARACTER**

By the use of different woods, most wishes related to design can be accommodated. The choice is, therefore, primarily a question of taste. However, the choice also affects how the floor will be used and in which environment it will be installed.

The structure of the wood, together with its hardness, determines how durable the floor is. However, major or minor variations can occur within each type of wood.

Lively, natural products and strongly structured types of wood, such as Oak, are not as optically sensitive as light, evenly grained types of wood, such as Hard Maple, even though the latter is slightly harder.

The visual characteristics of the wood determine how it is ‘graded’.

All grades are equally strong and serviceable, yet afford the consumer different looks.

For example - Oak and Ash have four basic visual grades. Each manufacturer will have different names to describe these grades for example Clear, Select and Common Grade 1 and Common Grade 2.

- **Clear** has no sapwood and few, if any, knots and other character markings.

- **Select** is almost clear but contains more natural characteristics such as knots and wider colour variations in the grain.

- **Common Grades (No 1 and No 2)** have more markings than either Clear or Select and are often chosen because of these natural features and the character they bring to a room.

  **Common Grade 1** has a variegated appearance, light and dark colours, knots, flags and worm holes. **Common Grade 2** is rustic in appearance and allows all wood characteristics of the species.
INTERIOR DESIGN AND AESTHETICS

Colour and Design
When choosing the floor, appearance and the style of décor are equally important as the practical aspects.

It is different if a wood floor maintains a low profile in the room so that furniture and other objects are more prominent, than if the floor is to characterise the entire room.

When deciding on the installation of a wooden floor, it is often useful to think in terms of colours and not of species.

This is important since the choice of colour can dramatically alter the spatial perception as well as the mood of each room.

For example, dark rooms will immediately be brightened if lighter woods, such as Maple, are installed. The floor constitutes the largest part of the interior design in a house. There should, therefore, be harmony between the floor colour and the dominant colour of the rest of the interior design.

The only other factors to consider are personal preference and practicality. Maple and Birch are the lightest colour woods and may not be suitable for entrance halls where people may come in with dirty shoes.

Wood flooring with knots offers a very natural feeling and is produced with exciting variations in colour and structure. These floors appeal to people who wish to express a natural lifestyle.

The look of a laminate floor is created on the printing machine and not by nature. The range of choices is just as broad – perfect wood imitations are offered as well as interesting wood patterns in various colours.

Thus, the right laminate floor is always available, even for unusual tastes.
### Types of Wood and their Properties

<table>
<thead>
<tr>
<th>Type of Wood - structure/colour/properties</th>
<th>Country of Origin</th>
<th>Colour Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alder:</strong> Yellow to slightly red wood. Brown streaks in the heartwood. Dense pores with fine grain.</td>
<td>Europe</td>
<td>Goes quite yellow</td>
</tr>
<tr>
<td><strong>Ash:</strong> Light yellow to yellowish-brown wood. Brown heartwood. Porous. Marked grain.</td>
<td>Europe</td>
<td>Goes yellow</td>
</tr>
<tr>
<td><strong>Beech:</strong> Light yellowish brown to reddish-brown wood. Dense pores with reddish-brown heartwood. Beech has a very discrete grain. Beech reacts more than other types of wood to variations in room climate.</td>
<td>Europe</td>
<td>Goes yellow</td>
</tr>
<tr>
<td><strong>Birch:</strong> Whitish-grey to light brown wood with mother of pearl structure. Brown Streaks in the heartwood. Dense pores.</td>
<td>Europe</td>
<td>Goes yellow</td>
</tr>
<tr>
<td><strong>Cherry (Black Cherry):</strong> Light red, green to dark reddish-brown wood. Contains black streaks (gum). Dense pores with white surface wood.</td>
<td>North America</td>
<td>Goes dark quickly – becomes bright red</td>
</tr>
<tr>
<td><strong>European Maple:</strong> Light yellow to yellowish-brown wood. The heartwood is brownish. Dense pores.</td>
<td>Central Europe</td>
<td>Goes quite yellow</td>
</tr>
<tr>
<td><strong>Hard Maple (Canadian Maple):</strong> Light yellowish-brown to dark yellowish-brown wood. Dense pores with brownish heartwood. Grain in think streaks. Hard Maple reacts more than other types of wood to variations in room climate.</td>
<td>North America Canada</td>
<td>Goes yellow</td>
</tr>
<tr>
<td><strong>Iroko (Kambala):</strong> Golden-brown to dark-brown wood with narrow grain. Dense pores.</td>
<td>Africa</td>
<td>Goes dark quickly</td>
</tr>
<tr>
<td><strong>Jarrah:</strong> Reddish-brown to dark-brown wood. Dense pores.</td>
<td>Australia</td>
<td>Goes quite dark</td>
</tr>
<tr>
<td><strong>Jatoba:</strong> Reddish-brown porous wood with grey/white surface wood. The grain is dense and moderate.</td>
<td>Brazil</td>
<td>Goes dark quickly – becomes bright red</td>
</tr>
<tr>
<td><strong>Merbau:</strong> Yellowish-brown to brown or blackish-brown woods. Visible porosity.</td>
<td>Indonesia</td>
<td>Darkens – goes red</td>
</tr>
<tr>
<td><strong>Oak:</strong> Brown to dark-brown wood. Porous with white surface wood. Marked grain.</td>
<td>Europe</td>
<td>Goes yellow</td>
</tr>
<tr>
<td><strong>Red Oak:</strong> Yellow to slightly pink wood with the same structure as Common Oak. Porous with white surface wood.</td>
<td>Central Europe</td>
<td>Goes yellow</td>
</tr>
<tr>
<td><strong>Rosewood:</strong> Pink to red, light brown to brown. Dense pores with whitish-grey surface wood.</td>
<td>South Africa</td>
<td>Goes dark quickly – becomes bright red</td>
</tr>
<tr>
<td><strong>Sucupira:</strong> Dark brown wood. Dense pores with slight grain.</td>
<td>Brazil</td>
<td>Little change</td>
</tr>
<tr>
<td><strong>Walnut:</strong> Brown to blackish-brown wood. Dense pores with white surface wood. Varied and significant grain.</td>
<td>North America</td>
<td>Goes yellow</td>
</tr>
</tbody>
</table>