

FLOOR SELECTION GUIDELINES

To avoid confusion, disappointment and possible future problems, it is important that the correct flooring product is selected and specified before the floor is laid.

Should you be asked for advice or are recommending a particular floor, it is important to raise the following points with the specifier. Always remember that the specifier may not be the end user, so take this into consideration.

What is the floor going to be used for?

Floors installed in areas such as restaurants, pubs, shops etc, will receive far more wear and tear than those in a bedroom or living room. Similarly, a sprung area-elastic sports floor requires a different undercarriage system compared with that required for a domestic floor. It is therefore the application which will determine the thickness and type of finish on a board as well as which undercarriage system is most suitable. You should take the following points into account when deciding on a hardwood floor:

- * Is the floor likely to be subject to heavy wear and tear?
- * Is the floor for sports, multi-purpose, domestic or commercial use?
- * Will the floor receive regular and correct maintenance?
- * What type of maintenance is currently available?
- * Are spot repairs likely to be required?

The hardness of wood flooring is measured using the Brinell method. This method involves pressing a 10mm diameter ball-bearing against the timber surface. The indent is measured and from this the hardness is calculated.

The table below shows the hardness of commonly used flooring species, listed in order from softest to hardest:

(Species: Brinell Value)

Pine: 1.6
Birch: 2.6
European Maple: 3.0
American Walnut: 3.4
Cherry: 3.6
Oak: 3.7
Beech: 3.8
Red Oak: 3.8
Ash: 4.0
Hard Maple: 4.8
Merbau: 4.9
Jatoba: 7.0

Floors for sports applications must use loadbearing boards. Thinner boards are for domestic use only.

Hardwood floors are generally not recommended for bathrooms or other wet areas. However, they

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are often used in kitchens and other areas where minor spillages may be expected. In such cases, the client must always be informed of the need to wipe up spillages immediately and to have a suitable maintenance programme.

The choice of the species of wood will also play a part in the selection as, even though all are hardwoods, some woods are harder and denser than other woods. Woods such as Oak are traditionally the most stable.

A sports floor for example will perform best if made of a lighter wood such as Beech, as it provides the optimum light reflectancy for the sports person and general user and shows the line markings to the best effect.

What Does the Client or Customer Expect?

Although various woods and systems can be recommended, it is important to ensure that the end user is aware of what he is getting and that his perception of the product is correct.

If the end user requires a floor where all knots are in the same place can be hosed down regularly with water and never gets dirty, he does not want a wooden floor!

Wood is a natural material and is therefore subject to infinite variations in colour, texture, knots and grain pattern. Natural timber also contains characteristics which are not found in man-made materials, such as surface splits, shakes etc. These are accepted as being a normal feature and are not detrimental to the performance of the floor.

All flooring products have limitations. The few that pre-finished hardwood have are far outweighed by their advantages, but nevertheless should be pointed out.

- * The beauty of a wooden floor is its range of grading and individuality, so correct samples of the product should be seen by the end user and explained. A preference will be shown for a particular wood and grade, and this should be taken into account when advice is given.
- * Ensure the end user knows how to clean and maintain a wooden floor.
- * Wooden floors move by expansion and contraction all their life. Wood is not an inert material.

The customer may also present you with a range of sub-floors on which to lay a hardwood floor. Later in this guide, we discuss the methods of fixing, but generally, we can say whatever the situation, PHMA members can usually provide a system which allow a hardwood floor to be installed. Such systems range from fitting very thin overlay boards directly to screeds or similar, floating floors on insulation, to nailing to battens and joists. Systems are even available for unlevel bases.

What Determines Which Floor to Select?

Quite simply, the floor's selection will be determined by its use.

(a) Domestic Floors

- The look and colour of the floor will be paramount
- Ease of maintenance is important

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- Thickness is less important as the wear is minimal
- Thinner overlay boards will probably be suitable as they will match up with other floor finishes
- Generally, both lacquered and oiled finishes are suitable. However, the client must be informed of the different maintenance procedures required.

(b) Commercial Floors

- Aesthetics play a great part in the selection
- Long term durability will be required
- Ease of cleaning and low maintenance costs are important (although not always possible)
- Speed of installation is always important, as is ease of installation
- The choice of floor finishes include oiled or lacquered. With correct maintenance, oiled floors are particularly suitable for high traffic areas
- Pre-finished boards are ideal for shop refurbishment as there is no need for sanding and sealing and no need for acclimatisation on site
- The harder woods should be chosen any grade
- PHMA manufacturer members can advise on the correct board thickness for specific applications

(c) Sports Floors

Most specifiers will require a floor which complies with BS 7044 and/or DIN 18032. Points to consider when selecting a sports floor include:

- The surface must have the correct friction coefficient
- Different sports require different resilience levels, so the predominant sport played may dictate the system chosen
- The system must comply with the relevant standards for resilience, ball response and shock absorbency
- The system must have correct light reflectance
- The surface must be capable of being maintained and re-sealed over many years
- Usually, sports floors are very large, so speed of installation is important
- Floors with a uniform light golden colour are generally most suitable to enable line markings to be easily visible

Cost

Costs are important. Pre-finished wooden floors are very cost effective, when long term maintenance and durability are taken into account.

Unlike carpets and other smooth surfaces, wooden floors can be easily refurbished to provide brand new surfaces time after time, year after year.

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