WOOD FLOORING PRODUCT

PART I

Wood Flooring Options

Wood is the hard fibrous material that forms from the main substance of the trunk or branches and beneath the bark of a tree. A wood floor is any flooring product that contains real wood as the top-most, wearable surface of the floor.

Wood floors come in many different options. These include, but are not always limited to, the following:

Hardwood/ Softwood

A. **Hardwoods** come from deciduous, broad-leaved trees that lose their leaves annually. Hardwood comes from angiosperm trees. Angiosperm trees produce enclosed seeds such as pecans, acorns, or walnuts. Hardwood trees include oak, maple, ash, cherry, and others.

B. **Softwoods** come from conifers, which are needle-bearing and usually remain green throughout the year. Softwood comes from gymnosperm trees. Gymnosperm trees produce uncovered seeds, such as pinecones. Softwood trees include pine, spruce, Douglas fir, cedar, and others.

C. It's important to remember that being hardwood or softwood does not necessarily reflect density. Some softwoods are harder than hardwoods and some hardwoods are softer than softwoods.

Domestic/Imported

A. **Domestic woods** are wood species grown and harvested within the United States and Canada.

B. **Imported woods** (also known as exotic or tropical species) are wood species grown and harvested outside the United States and Canada.

Solid/Engineered

A. **Solid Wood Flooring**

1. Solid wood flooring is exactly what the name implies, a solid piece of wood from top to bottom.
2. Solid wood floors can be sanded and refinished numerous times during their service life.
3. Solid wood floors should not be installed below grade, which means below ground level, unless otherwise recommended by the manufacturer.

B. **Engineered Wood Flooring**

1. Engineered wood flooring is real wood flooring as well, but instead of a solid piece of wood from top to bottom, it is made using several layers of wood veneers or lumber core that are bonded together using adhesives.
2. No matter what the thickness of the engineered product, it is the top layer that determines the final appearance of the wood floor. This wear layer will be the species of wood that is selected.
3. The construction of engineered wood flooring can vary. The construction varies by manufacturer and by product.
4. The thickness of the finished product can range from 3/8" to 3/4".
5. The top layer of engineered wood flooring typically is referred to as lamina or lamella. Each layer is bonded to adjoining layers using adhesive.
6. The middle layers, which are called core layers, can be made of the same species as the wear layer, or an entirely different species. The bottom layer is called the backing.
7. In general, due to its' construction, engineered wood flooring can be installed above- on- or below-grade.

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C. **Engineered Composite Wood Flooring**

1. Engineered composite wood flooring uses real wood on the wearable surface that is bonded to a multitude of composite platform materials using adhesives.

2. In general, due to its construction, engineered composite wood flooring can be installed above- on- or below-grade.

Jobsite-Finished/Factory-Finished

A. Jobsite-finished floors are manufactured and installed in a raw state and sanded and finished on-site.

B. Factory-finished floors are just as the name implies. The flooring has finish applied at the factory prior to installation.

Strip/Plank/Wide Plank/Parquet

A. Strip wood flooring is manufactured in linear widths less than 3".

B. Plank wood flooring is manufactured in linear widths greater than or equal to 3", and less than or equal to 5".

C. Wide plank wood flooring is manufactured in linear widths greater than 5".

D. Parquet flooring is any pattern that is geometric in shape as opposed to linear. The traditional finger block pattern is a very common and simple parquet pattern, but parquet can vary in style, width, complexity, and pattern.

Saw Cut

How wood is cut from the log will affect appearance and performance of wood flooring. There are several sawing methods used for the production of both solid and engineered wood floors.

A. **Plainsawn/Flatsawn:** Wood cut parallel to the growth rings so that the growth rings are mostly parallel (0° to 45°) to the wide face of the board (a tangential cut) is called plainsawn in hardwoods, and flatsawn in softwoods. Plainsawn flooring is more dimensionally stable in thickness (radially) and less stable in width (tangentially).

B. **Riftsawn/Bastard-Sawn:** Wood cut neither parallel nor perpendicular to the growth rings so that the growth rings make angles of 30° to 60° to the face of the board is called riftsawn in hardwoods, and bastard-sawn in softwoods.

C. **Quartersawn/Vertical-Grain:** Wood cut perpendicular to the growth rings so that the growth rings are mostly perpendicular (45° to 90°) to the wide face of the board (a radial cut) is called quartersawn in hardwoods, and vertical-grain in softwoods. Quartersawn lumber is more dimensionally stable in width (radially) and less stable in thickness (tangentially).

D. **Livesawn:** Wood cut from the outside diameter through the heartwood incorporating the full range of the above characteristics on the face of the board is known as live-sawn material. This cut is typically wider and incorporates all of the dimensional stability and aesthetic characteristics of the other cuts.

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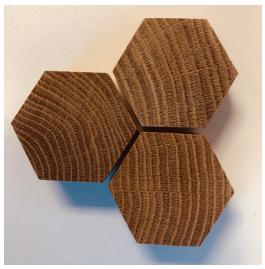
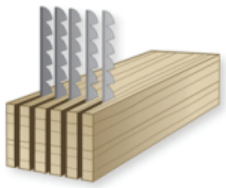
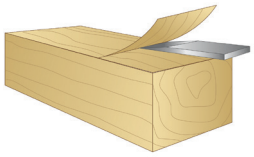
E. **End-Grain:** Wood cut so that the face of the floor surface exposes the ends of the growth rings is the transverse cut, more often known as end-grain. End-grain flooring will shrink and swell according to the tangential value in the direction across the circumference of the growth rings and according to the radial value in the direction perpendicular to the growth rings, with essentially no movement in thickness.



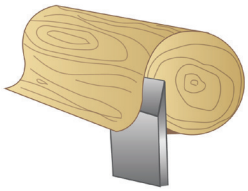
F. **Sawn Veneers:** With engineered wood flooring, the top veneer (or lamina) is sawn in the same way as normal solid wood flooring, and is available in any of the cuts previously mentioned. The only difference is the thickness of the cut, which varies from product to product.



G. **Sliced Veneers:** With engineered wood flooring, the top veneer is sliced from the lumber (called a cant). This process of producing veneers has thickness limitations and can stress the wood fibers, but has very similar natural, physical, and strain characteristics as a sawn veneer.



H. **Rotary-Peeled Veneers:** With engineered wood flooring, the top veneer is produced by positioning full logs onto a large lathe, which spins the log against a sharp blade, producing a distinct, purely tangential grain-pattern. The grain pattern repeats on larger sheets.



Grade

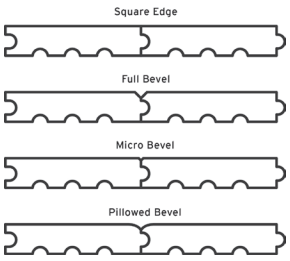
A. Grading is an essential part of doing business in the hardwood floor industry. Grades group flooring with similar qualities, bringing a degree of consistency to products from different mills. Grades tell the purchaser what to expect when buying product, including surface characteristics, required lengths, and milling tolerances.

B. Grades are established through industry mill certification programs such as NOFMA (formerly the National Oak Flooring Manufacturer's Association, and Wood Flooring Manufacturer's Association; currently the wood flooring mill certification program administered by the NWFA), or by hardwood flooring manufacturers that determine their own classifications and create their own grades, or "proprietary grades."

Beveled edges

A. Beveled edges are a feature of most factory-finished wood floors. A bevel refers to an edge of a board that is not perpendicular to the face.

B. The degree of beveling varies depending on the manufacturer and the specific product. Typical bevel styles include the following:



- Square edge
- Full bevel
- Micro bevel
- Pillowed bevel
- Chiseled edge

Antique Reclaimed/Recycled/Salvaged

A. **Post-Consumer Recycled/Antique Reclaimed Wood:** Wood or wood fiber that has been reclaimed from an end- user after being used for its original intended purpose. End-users may include individuals, households, or industrial users of the product.

B. **Pre-Consumer Recycled Wood:** Wood or wood fiber that is created as a by-product of a secondary manufacturing process and is not typically re-used on-site in the same process that generated it (also called post-industrial recycled wood).

C. **Salvaged Wood:** Wood or wood fiber that comes from logs that have been salvaged from the following sources: post-agricultural (e.g., fruit and nut orchards); urban forests (street trees); waterways (sunken logs raised from rivers, reservoirs, and lake bottoms); and other sources that are otherwise not intended to be harvested.

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