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The Hardwood Flooring Academy

Hardwood Floors Knowledge Resources

We at [AcademyFloor.com](http://www.academyfloor.com) understand that buying hardwood floor is not an easy task. There are endless numbers of different species and types of hardwood flooring to choose from. We understand that not everyone is an expert in hardwood floors nor do most home owners understand the general guidelines to installing hardwood floors. Our philosophy at **Hardwood Flooring Academy** is to teach all the information on flooring a person may need or want to learn. We are sure that you will find our information guide very helpful and useful in your next hardwood floor purchase.

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1. Solid Hardwood Floors

What Is Solid Hardwood Flooring?

When we talk about **Solid Hardwood Flooring**, the most important thing we need to know is that we are talking about 100% percent real wood! Not like in Engineered Hardwood Flooring, the **Solid Wood Floors** are made of solid pieces of wood, which generates pieces of Solid Hardwood Floors.

Solid Wood Floors



In the early days of hardwood flooring, the term **Solid Hardwood Flooring**, used to describe the **Solid Oak Hardwood Flooring**, usually the **Red Oak Flooring** which comes with 3/4" inch. thickness and 2-1/4" inch. wide Hardwood Strips. Surprisingly, even in our days it is still one of the Best Sellers in the Solid Hardwood Flooring World.

Today, with the new advanced and improved technology, our world of Solid Wood Floors reached to whole new places, allowing us to choose from a variety of **Wood Species**, different Widths and huge selection of **Wood Stains** and Colors. Now you can get your Solid Hardwood Flooring in various sizes, from the small size of 2-1/4" inch. wood floor strips to 3" inch. , 4" inch. , 5" inch. and even 6" inch. wide Hardwood Plank Flooring, and even wider... Most of the new Solid Wood Floors come on random lengths varies from 3' feet. to 7' feet. long flooring planks.

What's The Difference Between Prefinished Hardwood Flooring and Unfinished Hardwood Flooring?

Solid Hardwood Floors can come both **Prefinished Wood Flooring** and **Unfinished Wood Flooring**. For most of the residential customers, the best choice is to go with the Prefinished Solid Hardwood Flooring. Our Prefinished Solid Hardwood Floors are already sanded, sealed, stained, finished and coated with **8 Layers of Aluminum Oxide** all to produce a product which is much more durable, strong and effective with a sealing coat that

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will last longer than anything that you may find in a hardwood flooring supply store or home improvement center. That's why The **Prefinished Hardwood Flooring** is a **Ready-to-Install** Product! You can walk on your new Hardwood Floor in the minute you install it! The other choice in the Solid Wood Floors World is the **Unfinished Wood Flooring**. Those Wood Floors require a lot of work and time to obtain a high quality finished product, and are **NOT Recommended** for unprofessional people. When you buy Solid Unfinished Hardwood Flooring you have to use Sanding Machines to sand the wood for the desire grade. Then you will have to stain and then seal the wood floors. This process is long and somehow complicated since you need to know how to use those **Sanders and Sanding Machines**, how to stain the floor and how to seal it, you will have to wait (sometimes even days) until the stain or the sealer coats get dry, and of course you need to buy all the material, the **Sanding Papers**, the **Wood Stains**, the **Wood Sealers** and of course the very expensive sanding machines (there are some places where you can rent those machines). All of these make the **Prefinished Hardwood Floor** a very **Cost-Effective Product**, which save you the time, money and power you will waste when installing the Unfinished Wood Floors.

So What To Choose? Prefinished Wood Floors or Unfinished Wood Floors?

So why do people still choose the Solid Unfinished Hardwood Floors instead of Prefinished Hardwood Floors? When buying The **Unfinished Hardwood Flooring** you can finish it however you like. You can choose different wood species from a very big variety, sand it and finish it to the desirable finish grade (hand-scraped, heavy-distressed or simple flat), then choose a stain from huge selection of brands and colors – you can even mix stains to obtain a new color – and by that creating your own **Special and Unique Hardwood Flooring**.

The **Unfinished Hardwood Floors** also come in different grades:

Select & Better – Usually describe a very consist color variation with longer plank lengths and no blemishes or knots.

#1 Common – The planks are showing more of the natural character such as lighter and darker boards, pinholes and knots are present.

Again, it is very Not Recommended to install Unfinished Wood Floors by someone who is not a professional in the Hardwood Flooring Industry!

Today's **Prefinished Solid Hardwood Flooring** comes in a very big variety of wood species and stains. You can find all kinds of Hardwood Flooring as **Solid Oak Hardwood Flooring, Red Oak Hardwood Flooring, Walnut Hardwood Flooring, Maple Hardwood Flooring** and even Exotic Species like the **Pilang Hardwood Flooring** (Exotic Walnut) or the **Jatoba Hardwood Flooring** (Brazilian Cherry). You can have White Oak Hardwood Flooring with Walnut Stain, or even Maple Hardwood Flooring with Sunset Stain...
Endless Possibilities...

What About Refinishing Solid Wood Floors?

One of the biggest advantage of the **Solid Hardwood Flooring** is the ability to refinish, re-sand or re-coat it for a several more times. With the 3/4" inch. thickness you can refinish the product up to even 10 times! By that you are getting the best value from your product – you can have your **Solid Hardwood Floors** for Over 100 Years!

How to Install Solid Hardwood Flooring?

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The **Solid Hardwood Floors** react to the presence of moisture. In the winter, while most of the places use heating systems which dry out the air, moisture leaves the hardwood floors, causing the wood floor to shrink a little in size, what can open a small gaps between the wood flooring planks. In the Summer, when humidity is higher, the wood flooring boards will expand what makes the gaps between the planks to disappear. Too much moisture can cause the **Hardwood Boards** to buckle or even break. This is why it is very important to check the installation area for moisture, with a [Moisture Test Meter](#), Before the **Hardwood Flooring Installation!**

Due to the sensitivity of **Solid Wood Floors** to moisture, it is strongly not recommended to install them bellow ground level (the basement for example) or directly on concrete! Usually the **Solid Hardwood Floors** will be installed using the Nail-Down Installation method, using [Flooring Nails Guns](#) or [Flooring Stapler](#) with the right size of [Nails, Staples or Fasteners](#). Some of the Solid wood Flooring (Usually the thinner ones) can be glue down too – According to Manufacturer Instructions.

Solid Hardwood Flooring - Best Value Flooring!

Solid hardwood Flooring is the best choice if you are thinking about the future. This is a lifetime product! Thanks to its thickness it can be sanded and refinished again and again with different stains and finishes many many more times. That's why solid hardwood flooring can increase the value of your home and is the best choice for best value in the **Hardwood Flooring World!**

2. Engineered Hardwood Flooring

Engineered Hardwood Flooring

All you need to know about Engineered Hardwood Floors

What is Engineered Hardwood Flooring?

A lot of people ask about the difference between **Engineered Hardwood Flooring** and **Solid Hardwood Flooring**. The explanation is very simple: Solid hardwood floors are made from solid, one piece of wood to create one-piece, solid hardwood planks. **Engineered Hardwood Flooring** is made from layers of hardwood, plywood and **High Density Fiber** (HDF), while only the top layer is a real prefinished hardwood!

One thing to remember, both of the hardwood floors contain Real Hardwood. While the **Solid Hardwood Floors** contain a one-piece hardwood planks, the Engineered hardwood flooring contains only one layer of real hardwood, the top one, the one you see and walk on.

So how do they make Engineered Hardwood Flooring?

The **Engineered Hardwood Floors** are built up by gluing together a number of layers made of soft hardwood or plywood materials with a top layer of real prefinished hardwood floor.

Of course, the more layers you have, the more stability and hardness you going to get from your engineered hardwood floor. Most of our [WoodCrafters Engineered Hardwood Flooring](#) comes with at least 7 layers of plywood and HDF, what creates a high-end product which lasts for a very long time...

From a normal person point of view, if you look at two different floors but with the same

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finish, one is solid wood floor and the other is engineered floor, you will see no difference between Solid Hardwood Floor and Engineered Hardwood Floor. After the floors have been installed, they are completely identical. That's because the top layers of both of the wood floors are exactly the same hardwood and have exactly the same stain and finish.

There are a few different methods for cutting the hardwood for **Engineered Hardwood Flooring**. Here are the most used **Wood Sawing Methods** for engineered hardwood flooring:

A. Rotary Cut Veneer – On this type of sawing, the engineered hardwood layer is being peeled off from the wood, using very large wood lathes. When using this hardwood peeling method we get more dramatic, varying, wilder graining from the hardwood floor.

B. Sliced Cut Veneer – This wood cutting method is identical to how **Solid Hardwood Flooring** is made up. In this method the hardwood is sawn like regular lumber hardwood planks, only with thinner layers... This is more expensive way to cut engineered hardwood floors, but it is the best way to get more natural, true color and grain of the selected hardwood.

So which Engineered flooring should I choose?

There is no right answer for that. Today, **Engineered Wood Floors** come in more variety than ever. The sizes start at 3" inch. wide, and goes up to 4" inch, 5" inch, 6" inch. and even more. You can find almost every wood species you can think of, with every stain or finish you can imagine, and by that building yourself the hardwood floor of your dreams... You can find **Engineered Oak flooring** with Mahogany stain, or **Hand Scrapped Engineered Cherry Flooring** with natural color, or for example engineered **Red Oak Flooring**, with 2-1/4" inch wide planks and natural red oak stain that looks exactly like **Solid Hardwood Floors**. Endless possibilities...

It all depends on your taste and your wishes.

Can I Refinish Engineered Hardwood Floors?

Today's **Prefinished Engineered Hardwood Floors** can last for over 40 years with the manufacturer finish. But what if you want to get a new stain? Or the floor got damaged?

Basically, the answer is Yes – You can refinish **Engineered Hardwood Flooring**. Since the top layer of the engineered hardwood floors is real wood, the refinishing is the same as in solid hardwood floors.

BUT there is one thing to remember when re-sanding **Engineered Floors**: while in solid hardwood, the whole plank (usually 3/4" inch. thickness) is wood, on engineered hardwood, the wood layer is very thin. According to the **NOFMA** (The Wood Flooring Manufacturers Association), re-sanding hardwood floor shouldn't remove more than 1/32" inch of material from the hardwood floor. That means that if your hardwood floor has a 1/16" inch. Layer of hardwood, you can re sand it and refinish it two more times. Of course, this kind of operation needs to be done by a professional from the hardwood flooring industry.

Most of our **WoodCrafters Engineered Hardwood Flooring** can be re-sanded and refinished for at least three more times, a fact that promises you a product that can last for over 100 years...

What About Installing Engineered Hardwood Flooring?

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Engineered Hardwood Floors are specially engineered to overcome the moisture problem when installing solid hardwood floors on areas with a lot of moisture or heat posing. The engineered hardwood floors have higher stability and resistant to moisture than the solid hardwood floors. Thanks to the layers structure, the twisting process that is happening in solid floors just cannot happen with the engineered floors.

That what makes the **Engineered Hardwood Flooring** the best choice for rooms that are below the ground level (like basements for example) or for tropical places with high levels of moisture.

Engineered Hardwood Flooring can be installed with the glue-down method (even directly to a concrete slab) or it can be nailed or stapled down to a wood sub floor (plywood for example) using **Nails Gun** or **Staples Gun**.

Engineered Hardwood Flooring is a **DIY** (Do It Yourself) product and can be installed by following pretty simple instructions.

When You Buy Hardwood Floors From [AcademyFloor.com](http://www.academyfloor.com) We Will Help You Step by Step if You Choose To Install Your New Hardwood Floor By Yourself!

In Conclusion:

Engineered Hardwood Flooring is the best solution for high humidity areas and can be installed on any level in your house, even bellow ground level and in basements.

Engineered Hardwood Floors Installation is not too complicated and can be done by home owners, with the right help and instructions. It can be glued down directly to concrete and of course stapled down or nailed down with the right tool.

Today, the **Prefinished Engineered Hardwood Flooring** comes with huge variety of wood species, wood stains and finishes.

Engineered Floors can be re-sanded and refinished, which ensures you a very long-lasting hardwood flooring product

3. Bamboo Flooring

Bamboo Flooring

All You Want To About Bamboo Floors

Over the last few years, we notice a new character in the hardwood flooring world. It is the new **Bamboo Floors** that entered to the Wood Floors industry and slowly but confidently took first places in today's **Hardwood Flooring**.

If you consider buying bamboo floors to your home, you probably want to read this introduction and overview about the **Bamboo Hardwood Flooring**.

What is Bamboo Flooring?

The first thing we need to understand about the Bamboo is that it is not considered as a wood, at least not from a botanical point of view. Botanically, the **Bamboo Plant** is actually grass and defiantly not hardwood species. The bamboo plant increases his popularity in the industry, thanks to his great hardness, strength and the ability to keep his dimensional

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structure stable. A lot of bamboo species are being used in the construction industry for thousands of years already, especially in the far east countries.

So what types of Bamboo Floors There Are?

There are basically two main types of **Bamboo Floors**. The first one is the **Natural Bamboo Floor**, which has very bright color, and is somehow similar to the maple flooring color or birch flooring color. The second main type of the bamboo called **Carbonized Bamboo Floor** and is darker than the natural bamboo color, and might look like the dark oak flooring colors. Both of the bamboo floor types come either with horizontal structure or with vertical structure.

Another type of bamboo is the **Strand Woven Bamboo** which comes both in **Natural Strand Woven Bamboo** Color and in **Carbonized Strand Woven Bamboo** Color. Strand Woven Bamboo is manufactured to achieve a better, greater hardness and strength from the bamboo floors and is a lot harder than the **Natural Bamboo** and the **Carbonized Bamboo** as well.

One good thing you need to know is that most of the bamboo flooring comes with a lot of variation. Since the Bamboo is a natural wood, his color varies without any ability to change it. Although the color variation, a lot of people still choose this floor as it is a very special color and has a lot of advantages other hardwood flooring doesn't have.

How Does Bamboo Flooring is Being Manufactured?

Almost all the bamboo floors that being sold in the United States come from the **Hunan** province in China, also known as The Bamboo Sea, for having very wide far reaching bamboo forests. After three years growing, the bamboo logs become "dead weight" and are ready to the harvest. The Bamboo Species, usually used for bamboo flooring called Mao (or Moso).

All of **WoodCrafters Bamboo Floors** are made up from completely mature bamboo plants, aged at least 6 years, to achieve more stability and durability for time.

The process of manufacturing **Bamboo Floors** starts by slicing the bamboo pieces into very thin strips at equal dimensions. While for the **Natural Bamboo Floors** the bamboo strips are being boiled to eliminate sugars, starch and insects, for **The Carbonized Bamboo Floors** the bamboo strips need to go through another process called **Carbonization**. In this process the bamboo strips are being steamed under pressure, what gives them the darker color of the carbonized bamboo, but also reduce the overall hardness of the bamboo floor.



After this purifying process, the bamboo strips go to a kiln dry, mostly to reduce the moisture levels at the bamboo wood. At this stage, before the gluing process, the bamboo is <http://www.academyfloor.com> v.1.00

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usually treated by preservative materials.

The next stage is of course gluing the bamboo strips together. The glue used for this process is usually a Urea-Formaldehyde (UF) Adhesive. The bamboo strips then go into a hot pressing with pressure of more than 1200 PSI, what connects the strips together to a bamboo hardwood board. In this binding process, strips that were assembled face up create **Horizontal Bamboo Flooring** while strips that were assembled side by side result with the **Vertical Bamboo Floor** construction.

Strand Woven Bamboo Flooring is a lot stronger and harder bamboo flooring. Its hardness achieved by pressing and gluing the bamboo strips even at extreme high pressure, even more than the original bamboo flooring.

Last stage of manufacturing bamboo flooring is of course the finishing and milling. After coating the bamboo with 8 Layers of Aluminum Oxide, the raw boards go into milling process. The finished product is the **Prefinished Bamboo Flooring Planks**, constructed exactly like the other hardwood flooring, using the tongue and groove profile for easy hardwood flooring installation.

[Can I Refinish My Bamboo Floors?](#)

Straight Answer – Yes! All the **Bamboo Floors** can be refinished or re sanded again, usually depends on the floor thickness. The bamboo floors can also be stained to another desired color by staining using wood stains. Note that this highly not recommended to refinish bamboo hardwood floors or any other hardwood floor, by a person who is not professional in this industry.

Bamboo Flooring Installation

The Installation of the bamboo wood floors is the exactly the same as in **Solid Hardwood Flooring**. It can be Nailed or Stapled Down, using **Nails Guns** or **Staples Guns**. It also can be glue-down using **Flooring Adhesive**. It is not recommended to use water based adhesive with the bamboo floor. The best choice for gluing down bamboo floors is the **Bostik Adhesives** – a leading brand in the hardwood flooring products industry. It can also glue down directly to concrete slabs, just like engineered hardwood floors.

It is strongly recommended to let the bamboo to acclimate to the room (where it being installed) temperature and humidity, by leave the hardwood flooring boxes open for at least three days, before starting to install the **Bamboo Floors**. It is also strongly advised to check the room for moisture prior the bamboo floors installation, because high levels of moisture can cause the bamboo to crack, cup and can ruin the bamboo floor.

In Conclusion:

Today you can find the bamboo almost in any place. It become a leading species of **Hardwood Flooring** and being manufactured by a lot of hardwood floors manufacturers. It is a very **Environmentally-Friendly** flooring product. While most of the wood species used for hardwood flooring takes dozens of years to achieve mature (for example: White Oak takes 120 years to reach mature), the bamboo plant can be used for hardwood flooring after only three years! It can be treated like other hardwood floors, installed on the same way as **Solid Hardwood Flooring** and even can be installed directly on concrete – option reserved only for the **Engineered Hardwood Flooring**.

That's what makes the **Bamboo Wood Floors** to a great product with very affordable prices. Today you can find a lot of different colors, structures and even types with bigger hardness and strength (the **Strand Woven Bamboo**), what ensure that you probably will find what you are looking for at the **Bamboo Flooring**.

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4. What Is Laminate Flooring - Floating Floors & Laminate Flooring

What is Laminate Flooring

Laminate Flooring - Floating Laminate Floors

All You Ever Wanted To Know About Laminate Flooring

What is Laminate Flooring?

Laminate Flooring is Not Real Wood. Laminate flooring is constructed of various layers that are fused together. The surface is a plastic type of composition which is applied to the main core using heat and pressure. The core is usually made of high density fiber or particle board, and the backing can be either a paper layer, or another layer of laminate. Laminate flooring is a hybrid. It looks like hardwood but it's not. Yet it's not vinyl tiling and it's not engineered flooring.

Some people love laminate flooring because it's easy to install - you can install several hundred square feet in a weekend. It's easy to clean, too. Other people hate it because, well, IT'S NOT REAL WOOD. Put your face right up to laminate flooring - looks like real wood, doesn't it? Use a magnifying glass. Amazing! That's because laminate flooring is a surface layer of two thin sheets of paper impregnated with melamine. This surface layer is a photograph of wood grain, not real wood, and is usually covered by a hard transparent layer impervious to dogs, chairs, high heels, you name it.

Laminate Flooring is a Photograph of Wood

Under the wood-grain photograph is about a half-inch of wood-chip composite. So, sure - it's wood. In theory. And herein lie both the strong and weak points of laminate flooring. The strong point is that you can replicate practically anything on this Earth through a photograph, even the most costly Italian marble. The weak point is that it is fake.

Laminate Flooring History

Laminate flooring was originally conceived by a Swedish company called Pergo AB, which was originally a division of Perstorp AB, founded approximately 120 years ago. In 1923 Perstorp developed a process for producing decorative laminates for tabletops, an area in which they quickly dominated. The company thought of the idea for laminate flooring in 1977, and the first laminate flooring was launched in Sweden in 1984. Pergo then expanded its laminate flooring operations throughout Europe in the late 1980's through to the early 1990's. In January 1994 Pergo laminate flooring was introduced into 107 stores on the East Coast and Midwest of America. By the summer of that year it had proved an overwhelming success and had gone nationwide into 850 stores. In 1995 Pergo laminate flooring was introduced into the Asia / Pacific region, and in 2000 the company name was officially changed from Perstorp Flooring to Pergo, Inc. During all of this time, other manufacturers saw the success of laminate flooring and soon started producing their own versions. The end result is a market full of so many products and variations, that knowing where to start and what to look for in laminate flooring can be overwhelming for many people. Once you have viewed the information in our Laminate Flooring Guides on the left of the screen, you should have gained enough knowledge to start making informed decisions about your new laminate flooring.

Due to its European success, laminate flooring is the fastest growing choice for flooring in America. Its low cost, durability, visual looks, and ease of installation, make it a great solution for those consumers wanting the looks of a real wood floor, but require a cheaper alternative or simply one of the other many laminate flooring benefits. As previously mentioned, laminate flooring is available in numerous variations and styles. The most common theme for

laminate flooring is to create the impression of real wood flooring, but laminate flooring is also available to create an impression of tiles or stone.

How Laminate Flooring is Made?

There are normally 4 layers in the make-up of laminate flooring and they can be assembled in two different ways, which is either "direct pressure" or "high pressure". Some manufactures also add an "underlayment" which is attached to the underside of the laminate flooring. This is designed to add sound insulation qualities to the flooring and also helps cushion the floor. The material which is usually used is cork, felt, foam or other similar material.

The Direct Pressure Method

With the direct pressure method, all of the layers are assembled at the same time and then heated and pressed together to form a bond. This is the most common type of laminate flooring.

The High Pressure Method

This type of laminate flooring is more often found in the expensive premium end of the laminate flooring market. It is a relatively new innovation which basically treats the top and bottom layers of laminate flooring separately, and then fuses these onto the core layer under extremely high pressure.

The 4 layers that makeup a typical type of laminate flooring are:

The Wear Layer

This is the surface that is walked on and is the top-most layer. It's typically made from cellulose paper that has been saturated with melamine plastic resins. This gives laminate flooring its excellent durability and scratch resistance.

The Design Layer

This is what gives the laminate flooring its design, colour and characteristics. It is the image that is seen through the wear layer and is usually made from cellulose paper with a photograph or a patterned print copied onto it. As it is below the wear layer, and therefore protected, it can not be marked, scuffed or fade.

The Core Layer

This is the main part of laminate flooring and is usually made from a type of particle board. Various strengths and thickness can be found, and a thicker core will be more stable. Some brands of laminate flooring have the core layer treated with water repellent chemicals, and others have Paraffin wax impregnated joints to prevent water from penetrating down into the core.

The Stabilizing Layer

This is the very bottom layer that is usually made from cellulose paper that has been saturated with melamine plastic resins, just the same as the top layer. Its purpose is to create equality on either side of the core layer so that one side isn't affected differently from the other, and thus have unnecessary movement within the boards.

Laminate Flooring Benefits

There are three main laminate flooring benefits: cost, ease of installation, and durability. Probably the greatest laminate flooring benefit is its ability to add a smart and sophisticated look to a room, with the cost being considerably less than what it would be if real wood flooring was used. The other main benefit of laminate flooring is the natural look of a genuine wood floor that most good quality laminate flooring products have. A further laminate flooring

benefit is the installation can be relatively simple if a few guide lines are followed, see our laminate flooring installation section. A considerable number of laminate flooring manufacture's now supply glue less laminate flooring systems which simply slot together, making these systems ideal for both the DIY market and professional contractors.

The durability of laminate flooring is another benefit that is far superior to real wood flooring. Laminate flooring is approximately fifteen times stronger than hardwood flooring, and most come with a 10 or 15 year warranty. This is a considerable benefit over real wood flooring.

Apart from the three main benefits shown above, laminate flooring also has other smaller benefits that can get overlooked:

Unlike real wood flooring, laminate flooring has a high UV resistance which blocks the harmful rays of the sun and protects the design from fading. This benefit can save a lot of future maintenance that would be required to keep a real wood floor looking as good as laminate flooring. Due to the visual design's of laminate flooring being simply an image printed onto paper (see laminate flooring makeup), the various design options are endless and provide further laminate flooring benefits. Laminate floor boards tend to be wider than real wood floor boards, which reduces installation time for laminate flooring. This laminate flooring benefit could be a significant one, if the area that the laminate flooring is being installed into was high traffic area. With the glue less systems of laminate flooring, there is no excess glue to clear up, and the floor can be used immediately after installation, again, another great benefit of laminate flooring if it's a high traffic area..

Most laminate flooring brands come with either a 10 or 15 year warranty. Real wood floors cannot normally offer this benefit. Other laminate flooring benefits include its low maintenance, requiring just a quick wipe over with a brush. Any spills can simply be cleaned up using a mop or sponge.

5. Engineered Vs. Solid Wood Floors

Engineered vs. Solid Wood Floors

What Hardwood Flooring Should YOU Choose?

In today's **Hardwood Flooring** Industry there are two main characters made of Hardwood, both very similar in some aspects, yet very different in other. We are talking about the **Engineered Hardwood Flooring** and the **Solid Hardwood Flooring**. If you are looking for a new hardwood floor, you probably already heard about those two kinds of hardwood flooring. This article comes to explain the differences in structure, manufacturing, species and installing methods between the Solid Hardwood Floors and the Engineered Hardwood Floors. We will give you the main advantages and disadvantages of both of the hardwood floors, hopefully after reading this article and understanding it you will be able to choose your next floor more wisely.

Engineered vs. Solid Hardwood Flooring – Different Manufacturing Methods

Before we learn how hardwood flooring is being manufactured we want to keep in mind one important thing: both **Engineered Flooring** and **Solid Flooring** contain **REAL Hardwood**. The first and the most important difference between solid floors and engineered floors is the way they are being manufactured. **Solid Hardwood Floor** is being manufactured from a solid piece of wood, which results in a solid piece of hardwood plank – one solid material all the way, from sawing the wood until installing the floors, it's all one piece.

On the other hand, **Engineered Hardwood Floors** contain only one thin layer of real hardwood – the visible top layer. Engineered Flooring is made up from multiple layers of softwood like plywood or **High Density Fibers** (HDF), all glue down together with pressure,

what result with a multi-layer plank with top layer of real hardwood. So you probably going to think that **Solid Wood** is a better choice because it contains a lot more real hardwood, right? This is right in some cases, but definitely wrong in other cases. The **Engineered Hardwood Flooring** was invented in order to overcome some problems solid hardwood floors having difficulties with, like moisture and high humid areas.

Installing Engineered Hardwood Floors vs. Installing Solid Hardwood Floors

One of the main differences is on the installation part. **Solid Hardwood Floors** have problems with moisture. When humidity goes up, solid wood might cup (edges raised to a cup shape), crown (center inflate, edges slope down) or even crack. For that reason, it is highly not recommended to install solid hardwood floors in places with high levels of moisture, like the bathroom, kitchen or basement. The **Engineered Floor** is a lot more resistant to moisture and humidity and can withstand buckling and rippling thanks to its strong layers structure. Important thing to remember is that there is no way to prevent from the wood planks to expand and contract as it is a natural process of wood when humidity levels are changing. In solid wood, this process is a lot more visible since it affect on each wood plank separately, while in engineered floors, the whole surface expand and contract as one unit, what makes the gaps between the hardwood planks less visible. Most of the **Engineered Hardwood Flooring** can be installed using the glue down method or by nailing or stapling it down to another subfloor. **Solid Hardwood Flooring** must be nailed down or stapled down to other subfloor, like plywood for example. The glue-down system just doesn't let the solid wood enough freedom to expand and contract, something that may cause crack and defects on the floor.

Bamboo Flooring is one type of **Solid Hardwood Flooring** that can be glue down like engineered flooring, as well as nailed or stapled down like solid flooring. Another advantage of the engineered hardwood is the ability to install it directly on cement and concrete slabs. Solid Wood Floors must be nailed down and it just can't be done onto concrete surfaces.

Another aspect of **Hardwood Flooring Installation** is the **Radiant Heat Flooring System**. If you are thinking about having one, you probably go with the engineered floors. Solid floors just don't fit with this kind of systems.

Durability and Long-Standing of Engineered vs. Solid Wood Floors

Usually, the main influence about how long your hardwood floor is going to stand depends on the finish, rather than it is engineered or solid wood. Most of today's **Prefinished Hardwood Floors**, both Engineered and Solid, have pretty comparable durability, BUT it really depends on how the floors are being finished by the manufacturer.

All **WoodCrafters Prefinished Hardwood Floors** are being finished with **8 Layers of Aluminum-Oxide** to provide proper complete curing protective system in a fashion that will enhance the durability of the coating over an extended period of dozens of years.

One big difference between **Engineered Flooring** and **Solid Floors**, when talking about long life standing is the refinishing issue. **Solid Wood** usually comes with a 3/4" inch. Thickness, what allow you to re-sand it and refinish it for more than 5 times. This ensures you a product that can last over 100 years! In **Engineered Flooring** this subject vary, and depend completely on the thickness of the top hardwood layer. We strongly recommend you to stay away from engineered flooring products that have a very thin layer. It will be very hard to repair or to change this floor to something else in the future. So if you are thinking about the far future, solid wood will be a better choice for you, although today's engineered floors can lasts for man many years as well.

All [WoodCrafters Engineered Hardwood Floors](#) can be Re-sand and Refinished at least three more times.

What About The Price of Engineered Floors Comparing to Solid Floors?

You might think that **Engineered Hardwood Flooring** will be cheaper than the **Solid Hardwood Flooring** because there is only thin piece of real hardwood at the engineered floors. That's right on some cases, especially when we are talking about wide wood planks, where a lot of expensive hardwood is being used to create solid wood planks. On the other hand, when talking about narrower wood planks, the solid hardwood will probably be a little bit cheaper, since the costs of manufacturing engineered wood floors take place. For example: [White Oak Engineered Flooring](#) with 3" inch. Wide planks will be more expensive than the same [White Oak Solid Hardwood Flooring](#) with the same width, while a wider size of 4" inch. Wide or 5" inch. Wide of [Engineered Walnut Flooring](#) for example, will be cheaper than [Solid Walnut Flooring](#).

The price of both Engineered Hardwood Flooring and Solid Hardwood Flooring also depends on the wood species that is being used. There are more expensive species like the walnut, or the **American Cherry** and the **Brazilian cherry** for example, and there are the less expensive species like the **Red Oak** and the **White Oak**, or the [Bamboo Flooring](#).

What About Designing? What Floor Looks Better? Engineered or Solid Floors?

When we are talking about what looks better, or about what floor to choose we need to keep in mind that if the hardwood species, the stain and finish are the same in both kinds of the flooring, nobody can tell the difference between engineered hardwood flooring and solid hardwood flooring.

Today, the [Engineered Hardwood Flooring](#) so developed, so you can find any species, with any stain, with variable width and thickness – all so you can choose exactly what fits for you. Thanks to the fact that there is only thin layer of hardwood at the engineered floors, manufacturers can provide us expensive wood species (like exotic wood species), or wider hardwood planks at affordable prices.

Of course, there is huge variety at the [Solid Hardwood Flooring](#) as well. You can find a lot of new species, stained with many different colors – it is basically your taste and preference.

In Conclusion:

With today developing technology, we can see a lot more **Engineered Floors** at the market that looks amazing with real warmth and beauty that until now were ascribed only with **Solid hardwood flooring**. The fact that they both contain real hardwood, and once they installed they both look the same, makes the decision very hard. Actually, the important thing you need to think about when choosing one floor on another, is where the floor is going to be. Once you decided, and understand what your options are, the only thing to do is to go with your taste and your heart...

6. Wood Species Information - Hardwood Flooring Species Chart

Wood Species Overview and Information

Hardwood Flooring Species

There are so many **Wood Species** out there, so many hardwood flooring species and so many differences. Each wood species has different strength, different qualities and different properties. When you are choosing a hardwood floor, there are a lot of things that you need to know, need to check and by that choose the best hardwood species that will most fit for you and your flooring needs.

We at the [AcademyFloor.com](http://www.academyfloor.com), believe that when you buy a new hardwood floor, you need to know all the useful information, no secrets or misguided help, so you will be able to make the best decision and choose your new hardwood flooring.

On this page you will find all the **Hardwood Flooring Species** we are selling on our website. Each link will take you to the chosen wood species page, with a lot of more information and facts about this wood species. There you will find the wood species botanical name, the main uses of this wood species and a lot of other information about the wood species hardness, color, look and more. You will also find examples of hardwood flooring, using this specific hardwood flooring species.

All of those wood species refer to **Solid Wood Species** as well as to **Engineered Wood Species**.

Please Choose One of The Following Wood Flooring Species to See More Information:



[American Cherry](#)



[Birch](#)



[Bamboo](#)



[Brazilian Teak \(Cumaru\)](#)



[Hickory Pecan](#)



[Brazilian Cherry \(Jatoba\)](#)



[Maple](#)



[Merbau](#)



[Pilang \(White Bark Acacia\)](#)



[Red Oak](#)

[Santos Mahogany](#)

[Walnut](#)



[White Oak](#)

7. The Cherry Tree - Cherry Hardwood Information

Hardwood Flooring Species: The Cherry Trees

Useful Information about The Cherry Tree

The **Cherry Tree** is a long-lived tree, with an average age of 150-200 years. The oldest cherry tree known to science had reached to the extreme age of 258 years. The cherry tree is also a very tall tree, with height of almost 80' feet tall, and a trunk size of 2'-3' feet wide.

It is a native tree to the **Eastern North America** and in some cases can be found at the **Center of America** as well. The **Cherry Tree** is well known for its strong reddish color and its high prices.

Cherry Tree Botanical Name: *Prunus serotina.*



Cherry Tree Origin Country: The **Cherry Tree** grows mostly at eastern north parts of **America**, from **Québec** and **Ontario** in **Canada**, down to **Florida**. In the center of America you can find the cherry tree in places like **Texas**, **Arizona**, **New Mexico** and even at mountains of **Mexico** and **Guatemala**.

Other Cherry Tree Species and Names: There many species of cherry trees. Other names used to describe this cherry tree are - **American Cherry Tree**, **Black Cherry Tree** and **Rum Cherry Tree**.

The Cherry Hardwood Look and Color: The **Cherry Tree** is well known for its reddish pinkish colors. The heartwood of cherry tree varies from rich red to light reddish brown while the cherry sapwood is lighter, somewhat pale brown pinkish color. Some manufacturers steam the cherry hardwood, to bleed the darker heartwood color into the light sapwood, what result with a uniform beautiful cherry color. The cherry tree color gets darker and richer reddish colors with the time.

The Cherry Hardwood Grain Texture: The **Cherry Hardwood** has a very clear satiny, glowing texture. It has a very Fine, frequently wavy, uniform grain. On **Cherry Flooring**, there is a significant color variation between the cherry hardwood planks.

Cherry Hardwood Hardness and Moisture Durability: While it is a very beautiful tree, the cherry hardwood is somehow soft. The cherry gets only 950 points at the **Janka Hardness Test**, 26% percent softer than the red oak hardwood benchmark. However, at the moisture **Dimensional Stability Test**, the cherry wood reach above the average score with 7.1 points, 17% percent more stable than the red oak hardwood.

Cherry Hardwood Uses on The Wood Industry: The **Cherry Tree** has a very valuable lumber. The cherry hardwood is the most used lumber material for cabinets, at the **United States Hardwood Industry**. In the hardwood industry we can find cherry doors, cherry furniture, cherry mouldings, musical instruments made of cherry wood and many more. The **Cherry Flooring Industry** takes about 3.9% percent of all the commercial hardwood industry in the **United States**.

To see examples of **Cherry Flooring** & To **Get FREE Cherry Wood Samples** please choose one of the following links:

[WoodCrafters Flat Engineered Cherry Flooring With Natural Stain](#)

[WoodCrafters Hand-Scraped Engineered Cherry Floors With Natural Stain](#)

8. Birch Wood In Industry - The Birch Tree Overview

Hardwood Flooring Species: The Birch Wood

Useful Information about The Birch Tree

The Birch Tree is considered as the **National Tree of Russia**, where they worship it as a goddess every year at **Green Week Festival**. **The Yellow Birch** is one **Birch Species** that is native to **Eastern North America**, places like the **Québec Province** in **Canada** and the

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states of **Minnesota** and **Georgia** at east of the **United States**. It can reaches up to 80' feet high and spread up to 30' feet. The Birch trunk size can grow up to 4' diameter. **The Birch Tree** longevity is usually around 150 years but it can reach up to 300 years!

Birch Botanical Name: Betula spp.



Birch Origin Country: Russia, North America

Other Birch Species: *Yellow Birch* (betula alleghaniensis), *Sweet Birch* (betula lenta) and *Paper Birch* (betula papyrifera)

Birch Look and Color: The sapwood look of the yellow birch might look a little bit like a maple color. It has a very light color, varies from creamy yellow to ashen white. The heartwood is a little more reddish in his color, with brown tinged and light red color. The Sweet Birch has more dark brown color at the heartwood, while the wood himself have similar light color like the yellow birch. The yellow Birch is the most used Birch species in the Hardwood Flooring Industry and contain great variation at grain and color

Birch Grain Texture: Most of the birch wood trees come with an even, straight texture. Some birch boards might show curly grain and wavy figuring.

Birch Hardness and Moisture Durability: The Yellow Birch has a rank of 1260 at the **Janka Hardness** Rating, which is a little bit softer (by 2% percent) than the Red Oak.

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Birch Stability To Moisture: At the **[Dimensional Stability Test](#)**, the Birch Wood gets and average rank of 9.5, 10% percent less than the Red Oak species.

Birch Uses on The Wood Industry: Birch is a very heavy, strong, durable wood. The Birch wood has a lot of uses at the wood industry and we can see a lot of birch wood cabinets, birch wood furniture and of course Birch Wood Floors. The Birch Wood is also being used for making toothpicks.

To see examples of **Birch Hardwood Flooring** & To get **FREE Birch Wood Samples** please choose one of the following links:

[WoodCrafters Solid Birch Wood Floor With Natural Stain](#)

[WoodCrafters Solid Birch Wood Floor With American Cherry Stain](#)

[WoodCrafters Hand-Scraped Engineered Birch Hardwood Floor With Sunset Stain](#)

9. The Bamboo Plant - Bamboo Hardwood Information

Hardwood Flooring Species: The Bamboo Wood

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Useful Information about The Bamboo Tree

From a botanical point of view, the **Bamboo** is actually not a real wood. The Bamboo considered as a kind of grass. The **Bamboo Plant** contains a big group of about 1000 perennial evergreen bamboo species, some of them small and some are the biggest plants at the grass family. New Bamboo shoots can grow more than 3' feet a day. The bamboo tree is most native to the Asian cultures like but can be found all over the world. The bamboo is a very important plant, which has being used many years ago, at the earlier time in china, mostly to make bamboo paper, but also as a big source of food.

Bamboo



Botanical Name: *Phyllostachys spp.*

Bamboo Wood Origin Country: The bamboo species that being used for bamboo hardwood flooring grows mostly in China and Vietnam. Other Bamboo species grow all over the world, including Australia, India, Africa and even United States and some American Countries.

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Other Bamboo Species and Names: There are over 1000 bamboo species in the world. Each Culture has other name for the bamboo. For example, in China the bamboo wood called *zhu*, in Japan you can find it under the name *take* and *tre* in Vietnam.

Bamboo Look and Color: The Bamboo is not a real wood and the process of making **Bamboo Hardwood Flooring** is unique and is different from other hardwood flooring manufacturing. There are usually two colors available: **Bamboo Natural** color and **Bamboo Carbonized**. The Natural Bamboo wood comes with a very bright color, somewhat creamy yellowish white, very similar to the maple natural color. The Carbonized Bamboo Hardwood has darker brownish color and might looks similar to the oaks colors. There is another kind of bamboo hardwood which called **Strand Woven Bamboo**, it comes with both natural color and carbonized color and is considered to be a lot stronger and harder than the natural bamboo wood.

Bamboo Hardwood Grain Texture: The **Bamboo Hardwood** has a very distinctive grain pattern and is determined by the way of manufacturing the bamboo floors. There are two ways of laminating the bamboo strips: **Horizontal Bamboo** and **Vertical Bamboo**. Both of the vertical bamboo and the horizontal bamboo come on both the natural bamboo color and the carbonized bamboo hardwood. The Strand Woven Bamboo is a mix of the horizontal bamboo wood with the vertical bamboo hardwood.

Bamboo Hardwood Hardness and Strength: Since the bamboo is not a real hardwood, its hardness and strength can vary, depending on the manufacturing way and the selected bamboo stalks. Usually, older bamboo plants will result with harder **Bamboo Hardwood**. At the [Janka Hardness Test](#) the carbonized bamboo gets a score of 1180 while the natural bamboo is a little bit harder with a score of 1380. For comparing, the popular red oak hardwood gets the score of 1290. **Strand Woven Bamboo Hardwood** is considered as the hardest and strongest bamboo hardwood. As for the [Dimensional Stability test](#), the bamboo reacts very good to moisture, thanks to its engineered construction and manufacturing.

Bamboo Uses on The Wood Industry: The Bamboo is a very useful wood species and is being used all over the world. In Asia it is well known as a source of food and it is sold in all kinds of ways and forms. As for the Wood Industry, there is no limit to the uses of the bamboo. It is well used in house construction, as well as for fences, bridges, toilets, walking sticks, canoes, tableware, furniture, chopsticks, food steamers, toys, construction scaffolding and a lot more. The Bamboo Wood is also being used for making musical instruments and even skate and surfing boards. Today the bamboo hardwood flooring industry grows very widely with a lot of new **Bamboo Flooring** products, colors and shapes.

To Read More Information about The Bamboo Please Visit Our [**Bamboo Hardwood Flooring Information Page**](#).

To see examples of **Bamboo Hardwood Flooring** & To get **FREE Bamboo Wood Samples** please choose one of the following links:

[**WoodCrafters Natural Bamboo Horizontal Flooring**](#)

<http://www.academyfloor.com>

[WoodCrafters Carbonized Bamboo Vertical Flooring](#)

[WoodCrafters Strand Woven Carbonized Bamboo Floors](#)

10. The Brazilian Teak Tree - Cumaru Hardwood Information

Hardwood Flooring Species: The Cumaru Wood

Useful Information about The Brazilian Teak Tree

The Brazilian Teak (also known as Cumaru) tree is a very big tree, reaches to height of up to 120' feet tall and with a trunk of up to 5' feet wide. The **Cumaru** is a native tree to the rainforests at South America, and to some other places at Central of America. The fruits of the cumaru are well known for their sweet aromatic fragrance, and are being used in a lot of places in the cosmetic beauty industry and at some medicines.

Brazilian Teak Botanical Name:



Dipteryx odorata, Tonka Bean

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Cumaru Wood Origin Country: The **Cumaru Tree** grows mostly at South America. Countries like Brazil, Peru and Costa Rica are rich with this Brazilian Teak tree, mostly at the famous rain forests.

Other Brazilian Teak Species and Names: There are a lot of common names to this special tree. Some of them are: Cumaru, Brazilian Teak, Brazilian Chestnut and Tonka tree.

Cumaru Look and Color: The **Cumaru Hardwood** has very special colors. When the Brazilian Teak Hardwood is fresh, its color varies from dark reddish-brown to purple-brown with sometimes light yellowish-brown strips. Over the years, with more exposure, the Brazilian Teak becomes more uniform in color and varies from light brown to yellow-brown.

Brazilian Teak Hardwood Grain Texture: The Cumaru Hardwood has a very fine texture and a very interlocked grain. While touching the cumaru hardwood it might feel like waxy or oily surface. The **Brazilian Teak Hardwood** is so dense that it will not float on water..

Brazilian Teak Hardwood Hardness and Strength: The Cumaru Hardwood is one of the strongest and hardest hardwood species on the world. It is 174% percent harder than the famous northern red oak, with a score of 3540 at the [Janka Hardness Test](#). It also has an average [Dimensional Stability](#) to moisture with a score of 7.6 points, which is 12% percent more stable than the red oak hardwood.

Brazilian Teak Uses on The Wood Industry: Besides the big variety of uses in perfumes, soaps and shampoos, the Brazilian Teak Hardwood has a lot of other uses. Thanks to its great hardness, the **Brazilian Teak Hardwood** is being used all over the hardwood industry. We can find bridges made of Cumaru, ships with cumaru hardwood, heavy construction, heavy carpentry and of course Brazilian Teak Hardwood Flooring.

To see examples of **Cumaru Hardwood Flooring** please choose one of the following links:

[Unfinished Brazilian Teak Hardwood Floors](#)

11. The Maple Wood - Maple Tree Overview

Hardwood Flooring Species: The Maple Wood

Useful Information about The Maple Tree

Maple is a very significant tree in the east of **North America** hardwood forests. Its normal height usually reaches 50 to 80 feet tall, with sometimes unusual height of up to 150 feet.

The **Sugar Maple** tree is one of the most important trees in **Canada** for being the major big source for maple syrup, one of the biggest industries in Canada. Thanks to the **Maple Wood** easy reproduction and transplantation, and to its pretty fast growing speed it is very popular as a street or a garden tree in a lot of places.

Maple Botanical Name: Acer saccharum



Maple Origin Country: Mostly at **North-East United States** and **Canda**

Other Maple Species and Names: **Sugar Maple** (*Acer saccharum*), **Hard Maple** (*Acer nigrum*)

Maple Look and Color: The **Maple Wood** has a very creamy, light honey white color. The Maple Wood might even look a little bit light yellowish sometimes. In the heart of the **Maple Hardwood** you can find more light reddish color, sometimes even a little bit creamy brown.

Maple Grain Texture: The **Maple Wood** has a very consist grain. Its texture is very closed, almost dull subdued grain, with pretty light figuring and uniform texture. On **Maple Hardwood** you can see sometimes curly figuring and texture looks like a bird eye.

Maple Hardness and Moisture Durability: The **Sugar Maple Wood** and the **Hard Maple Wood**, are very strong wood species with pretty high hardness and durability. The **Hard Maple Wood** gets 1450 score at **Janka Hardness Test**, which is 12% Percent harder than the very popular red oak hardwood for example. While looking at **Moisture Durability**, the maple wood has about average score of 9.9, about 15% percent less than red oak wood.

Maple Uses on The Wood Industry: Thanks to his great hardness and durability over time, the **Maple Wood** become a real leader at the wood industry. You can find **Maple Wood Furniture**, **Maple Wood Cabinets** and of course **Maple Wood Floors**. The **Maple Flooring** can be found at so many places as basketball courts (including the **NBA Courts**), bowling alleys, countless homes and many more. The Maple Wood is also being used with baseball bats, bowling pins, musical instruments and on many other places on the wood

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industry. The Maple Tree also being used to make the **Maple Syrup**, which is one of the biggest uses of the maple tree in the world.

To see examples of **Maple Flooring** & To get **FREE Maple Wood Samples** please choose one of the following links:

[WoodCrafters Solid Maple Hardwood Flooring with Natural Stain](#)

[WoodCrafters Engineered Maple Floors with Natural Stain](#)

[WoodCrafters Engineered Maple Hardwood Floors with Natural Stain - Hand Scraped Floor](#)

[WoodCrafters Engineered Maple Flooring with Cream Stain](#)

[WoodCrafters Engineered Maple Floors with Red Wine Stain](#)

[WoodCrafters Engineered Maple Floor with Mocha Stain](#)

12. The Merbau Tree - Merbau Hardwood Useful Information

Hardwood Flooring Species: The Merbau Wood

Useful Information about The Merbau Tree

The Merbau is a large tree with an average height of 50' feet tall. The merbau trunk can grow up to more than 5' feet wide, and grows with strong wide spreading buttresses. The **Merbau Tree** is a native tree to the Eastern South Asia regions and can be found in a lot of the countries in those areas, as well as in Australia too.

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Merbau Botanical Name: *Intsia spp.*



Merbau Wood Origin Country: The merbau tree grows mostly in South-East Asia, in countries like India, Philippines, Indonesia and in many Pacific Islands. The **Merbau Tree** can be found also in Australia.

Other Merbau Species and Names: Some of other names of the **Merbau** tree include *Intsia biuga*, *Intsia palembanica*, *Ipil* (Philippine name) and *Kwila*.

Merbau Look and Color: The **Merbau Hardwood** color is pretty dark brown with reddish tones. While the sapwood of the merbau tree consists somehow whitish colors, the heartwood of the merbau tree is a lot darker with brown and red-brown colors. When first cut the merbau heartwood is a lot brighter with orange yellowish colors, but it gets the darker colors upon exposure and with time. Another interesting thing about the **Merbau** hardwood is that sometimes you might see golden-yellowish "flecks" on it, something that gives the merbau hardwood very beautiful and shiny look. Most of the **Merbau Hardwood Flooring** consists with medium to high variation in colors.

Merbau Hardwood Grain Texture: The **Merbau Hardwood** texture is mostly fairly coarse. Merbau hardwood usually has straight to slightly interlocked, wavy grain. Some of the merbau hardwood flooring boards have an attractive, ribbon figuring.

Merbau Hardwood Hardness and Strength: The **Merbau** is a very strong, hard wood. On the [Janka Hardness Test](#), the merbau gets the score of 1925 which is 49% percent harder than the northern red oak hardwood. The Merbau also has an excellent [Dimensional Stability](#) to moisture with a score of 4.6 – 47% more stable than the red oak wood.

Merbau Uses on The Wood Industry: Tanks to its wonderful hardness and strength, and its durability to moisture, the **Merbau Wood** is being used in a lot of places in the wood industry. Today, we can find merbau furniture, merbau cabinets, merbau joinery, musical instruments made of merbau and of course **Merbau Hardwood Flooring**.

13. The Pilang Tree - White Bark Acacia Hardwood Information

Hardwood Flooring Species: The Pilang Wood

Useful Information about The Pilang Tree

The **Pilang Tree** can easily identified by its white bark and large wide spreading limbs. That's why the Pilang's English name is **White-Bark Acacia**. The pilang is a native tree to the southeastern areas of Asia. In those places, the pilang tree is being used mostly as shade for livestock and as a source of dry-season fodder. The **Pilang** is a large, very thorny tree, which can reach to the maximum height of 115' feet and with a trunk up to 3.3' feet wide. **The Pilang** tree has also a very long life span of 100 years and even more.

Pilang Botanical Name:



Acacia leucophloea

Pilang Wood Origin Country: Southeast Asia. Mostly India, Indonesia, Vietnam and Thailand.

Other Pilang Species and Names: *Pilang* (Indonesian name), *White-Bark Acacia* (English), *Safed Kikkar* (Hindi), *Safed Babul* (Bengali), *Goira* (Oriya), *Sarai*, *Velvelam* (Tamil).

Pilang Hardwood Look and Color: The **Pilang Tree** contains a big variety of colors and color variation. Generally, the bark is white to yellowish gray, smooth and exfoliates in long strips. The heartwood of the pilang tree has a strong brown-reddish color and is considered very beautiful hardwood. The pilang sapwood has a white-yellowish color, a lot brighter than the pilang heartwood, what gives the pilang hardwood a great variation in colors.

Pilang Hardwood Grain Texture: The pilang Hardwood has irregular interlocked grain, with a very rough texture. The Pilang is a very hard wood to work with.

Pilang Wood Hardness and Strength: The Pilang wood is a very strong as a hardwood. The pilang is also very hard and heavy wood, a lot more than the benchmark in hardwood flooring hardness tests, the red oak hardwood. On the [Janka Hardness Test](#), the pilang gets the score of 2400.

Pilang Wood Uses on The Wood Industry: Thanks to its magnificent colors, its great strength and hardness, the pilang hardwood mostly being used for decorative furniture. Although it is not the most known hardwood there is, today we can find the Pilang in a lot of places in the wood industry. There are Pilang poles, Pilang farming implements, Pilang carts, Pilang wheels, Pilang turnery, construction timbers and of course the most beautiful **Pilang Hardwood Floors**.

To see examples of **Pilang Hardwood Flooring** & To get **FREE Pilang Wood Samples** please choose one of the following links:

[WoodCrafters Solid Hand-Scraped Pilang Hardwood Floors with Natural Stain](#)

[WoodCrafters Solid Hand-Scraped Pilang Hardwood Flooring with Golden Stain](#)

14. The Red Oak Wood - Northern Red Oak Overview

Hardwood Flooring Species: The Red Oak Wood

Useful Information about The Red Oak Tree

The **Red Oak Tree**, also called "**The Champion Oak**", is the most common tree in North America. The Red Oak name in latin (*Quercus*) means "a fine tree". In forests, the red oak tree can grow up to 140 feet, with an average trunk diameter of 3 feet, and up to 6 feet wide. The **Red Oak** wood is well known in the wood industry and it is one of the leaders at the **Hardwood Flooring Industry**. The Red Oak is also the state tree of New Jersey and Iowa.

Red Oak Tree Botanical Name:



Quercus spp. (Red Oak Wood Family).

Red Oak Tree Origin Country: Northeastern areas of the **United States** and the southeast of **Canada**.

Other Red Oak Species and Names: Northern Red Oak (*Quercus rubra*). There are more than 200 Red Oak species only in the United States!

Red Oak Look and Color: The **Northern Red Oak** wood has a very warm, filling color. The red oak sapwood has a light reddish color. It is very similar to the **White Oak** wood but with more somewhat pinky red color. The heartwood of the red oak wood is a little bit darker, but still has the light red color of the red oak wood. The Red Oak Wood has a great color variation.

Red Oak Wood Grain Texture: The **Red Oak Wood** has more open coarser grain than the white oak wood. Red Oak Wood has a very porous surface, which might even look like tiny holes in unfinished red oak wood after sawn. The **Northern Red Oak** wood appearance is very similar to the white oak wood with a little less pronounced figure.

Red Oak Hardwood Hardness and Moisture Durability: The **Northern Red Oak** is like a benchmark at the [Janka Hardness Test](#). All the other hardwood species are being compared to the Northern Red Oak Wood which gets the score of 1290. At the [Moisture Resistant Test](#), The **Northern Red Oak** has an average score of 8.6.

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Red Oak Wood Uses on The Wood Industry: The **Red Oak Wood** can be found all over the wood industry. It is one of the most important trees at the timber production in North America. The **Red Oak Hardwood Flooring** is the biggest hardwood flooring industry at the United States with 36.6% percent out of all the hardwood species used for commercial hardwood flooring. Besides the **Red Oak Flooring**, we can find a lot of red oak furniture, red oak cabinets and even at some railroads.

To see examples of **Red Oak Flooring** & To get **FREE Red Oak Wood Samples** please choose one of the following links:

[WoodCrafters Solid Red Oak Flooring With Natural Color](#)

[WoodCrafters Solid Red Oak Floor With Zinfandel Stain](#)

[Wood Crafters Engineered Red Oak Flooring With Natural Color](#)

[Wood Crafters Hand Scraped Engineered Red Oak Floors With Natural Color](#)

[WoodCrafters Engineered Red Oak Flooring With Brandy Color.](#)

15. The Red Oak Wood - Northern Red Oak Overview

Hardwood Flooring Species: The Red Oak Wood

Useful Information about The Red Oak Tree

The **Red Oak Tree**, also called "**The Champion Oak**", is the most common tree in North America. The Red Oak name in latin (Quercus) means "a fine tree". In forests, the red oak tree can grow up to 140 feet, with an average trunk diameter of 3 feet, and up to 6 feet wide. The **Red Oak** wood is well known in the wood industry and it is one of the leaders at the **Hardwood Flooring Industry**. The Red Oak is also the state tree of New Jersey and Iowa.

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Red Oak Tree Botanical Name:



Quercus spp. (Red Oak Wood Family).

Red Oak Tree Origin Country: Northeastern areas of the **United States** and the southeast of **Canada**.

Other Red Oak Species and Names: Northern Red Oak (*Quercus rubra*). There are more than 200 Red Oak species only in the United States!

Red Oak Look and Color: The **Northern Red Oak** wood has a very warm, filling color. The red oak sapwood has a light reddish color. It is very similar to the **White Oak** wood but with more somewhat pinky red color. The heartwood of the red oak wood is a little bit darker, but still has the light red color of the red oak wood. The Red Oak Wood has a great color variation.

Red Oak Wood Grain Texture: The **Red Oak Wood** has more open coarser grain than the white oak wood. Red Oak Wood has a very porous surface, which might even look like tiny holes in unfinished red oak wood after sawn. The **Northern Red Oak** wood appearance is very similar to the white oak wood with a little less pronounced figure.

Red Oak Hardwood Hardness and Moisture Durability: The **Northern Red Oak** is like a benchmark at the [Janka Hardness Test](#). All the other hardwood species are being compared to the Northern Red Oak Wood which gets the score of 1290. At the [Moisture Resistant Test](#), The **Northern Red Oak** has an average score of 8.6.

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Red Oak Wood Uses on The Wood Industry: The **Red Oak Wood** can be found all over the wood Industry. It is one of the most important trees at the timber production in North America. The **Red Oak Hardwood Flooring** is the biggest hardwood flooring industry at the United States with 36.6% percent out of all the hardwood species used for commercial hardwood flooring. Besides the **Red Oak Flooring**, we can find a lot of red oak furniture, red oak cabinets and even at some railroads.

To see examples of **Red Oak Flooring** & To get **FREE Red Oak Wood Samples** please choose one of the following links:

[WoodCrafters Solid Red Oak Flooring With Natural Color](#)

[WoodCrafters Solid Red Oak Floor With Zinfandel Stain](#)

[Wood Crafters Engineered Red Oak Flooring With Natural Color](#)

[Wood Crafters Hand Scraped Engineered Red Oak Floors With Natural Color](#)

[WoodCrafters Engineered Red Oak Flooring With Brandy Color.](#)

16. The Santos Mahogany Tree - Santos Mahogany Useful Information

Hardwood Flooring Species: The Santos Mahogany Wood

Useful Information about The Santos Mahogany Tree

The Santos Mahogany is a very tall tree which can reach to heights of up to 100' feet tall, with a wide trunk of up to 3' feet wide. **Santos Mahogany** is a native tree to the Central America and South America areas. Tanks to its great hardness and durability, santos mahogany is one of the best lumber for hardwood flooring.

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Mahogany Botanical Name: *Myroxylon, balsamum*

Santos Mahogany Wood Origin Country: The **Santos Mahogany** tree grows, mostly at the rain forests of Central and South America, and can be found at countries like Peru, Brazil, Mexico and Guatemala.

Other Santos Mahogany Species and Names: Some of other names of the **Santos Mahogany** include cabreuva vermelha, red incensio, quina quina, estoraque, balsamo, nava and Bálsamo del Perú.

Santos Mahogany Look and Color: The sapwood of the **Santos Mahogany** is light brown while the heartwood of the santos mahogany hardwood is dark reddish-brown varies to dark purple-brown. With time, the santos mahogany color becomes darker and somewhat purplish-brown. Color Variation in the **Santos Mahogany Hardwood Floors** is moderately and very beautiful.

Santos Mahogany Hardwood Grain Texture: The texture of the santos mahogany is usually even and very fine. The **Santos Mahogany Hardwood** has a very beautiful interlocked grain, usually with stripped figuring.

Santos Mahogany Hardwood Hardness and Strength: The **Santos Mahogany** is a very hard, tough and strong hardwood. The [Janka Hardness Test](#) score of the santos mahogany is 2200 which is 71% percent harder than the popular red oak hardwood flooring. The **Santos Mahogany Hardwood Floors** are also very stable for moisture –

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28% percent more stable than the benchmark red oak hardwood, at the [Dimensional Stability Test](#).

Santos Mahogany Uses on The Wood Industry: The **Santos Mahogany** is very strong, stable, dense hardwood. Therefore, we can find the santos hardwood in a lot of places where strong hardwood is needed. There are Santos Mahogany furniture, Santos Mahogany veneer and of course **Santos Mahogany Floors**.

To see examples of **Santos Mahogany Hardwood Flooring** please choose one of the following links:

[Unfinished Santos Mahogany Flooring](#)

17. The Walnut Wood - Black Walnut Tree Species

Hardwood Flooring Species: The Black Walnut Tree

Useful Information about The Black Walnut Wood

The Black Walnut Tree is a large deciduous tree, native to the northern East America, where it grows usually alongside rivers. The **Walnut Tree** can reach up to heights of 130 feet tall with an average trunk size of 5' feet. At the ancient European history, the walnut tree used to symbolize fertility. Thanks to the walnut wood strength and hardness, it has been used in the industry already for hundreds of years. **The Black Walnut** has so valuable **Hardwood** that it used to be stolen by so-called 'Walnut Rustlers' which use even helicopters to take the walnut tree more quickly...

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Botanical Name: *Juglans nigra*.

Black Walnut Tree Origin Country: Northeastern areas of the **United States** and the southeast of Canada. Mostly at the states south Dakota, Georgia, Florida and Texas.

Other Walnut Wood Species and Names: There are about 21 more **Walnut Tree Species** in the United States. Among them you can find: Brazilian Walnut, Mexican Walnut, California Walnut and more.

Black Walnut Look and Color: The Black Walnut is most famous for his dark color Heartwood. The **Black Walnut Heartwood** has a very rich and deep dark brown, somewhat chocolate brown, with range to some more dark black purple colors. The **Black Walnut Sapwood** is a lot lighter and it might even look really white. This color variation between the sapwood to the heartwood of the black walnut tree is one of the things that make that tree so beautiful, special and desirable by many walnut wood fans all over the world. Some manufacturers steam the black walnut wood to seep the heartwood dark color into the black walnut sapwood lighter color.

Black Walnut Wood Grain Texture: The Black Walnut grain is mostly straight and open. Some walnut wood may have some curly, wavy grain, which result with gorgeous, attractive **Walnut Hardwood Flooring** colors.

Black Walnut Hardwood Hardness and Moisture Durability: The **Black Walnut Hardwood** is a moderately dense hardwood, yet very strong, with a good shock-resistance. The **Janka Hardness Test** score of the **Black Walnut Wood** is 1010, which is about 22% percent softer than the popular **Red Oak Hardwood**. The **Walnut Hardwood** has an average **Dimensional Stability** to moisture, with a score of 7.8 – 9% percent more stable than the **Red Oak Hardwood**.

Black Walnut Wood Uses on The Wood Industry: The Black Walnut Wood is a pretty expensive hardwood species, thanks to his beautiful dark color and to his strong, hard construction. Even at the old day, people were using the black walnut hardwood to make gunstocks, furniture and more. Today, the black walnut wood can be found as walnut furniture, walnut cabinets, walnut coffins and of course as a **Walnut Floor**. The black walnut flooring takes about 1.9% of the **United States Commercial Hardwood Flooring Industry**.

To see examples of **Black Walnut Flooring** & To get **FREE Black Walnut Wood Samples** please choose one of the following links:

[WoodCrafters Solid Walnut Floor With Natural Stain](#)

[WoodCrafters Engineered Walnut Flooring With Natural Stain](#)

[WoodCrafters Hand-Distressed Engineered Walnut Floors With Espresso Stain](#)

[WoodCrafters Hand-Distressed Engineered Walnut Floors With Cocolate Stain](#)

[WoodCrafters Hand-Distressed Engineered Walnut Floors With Midnight Stain](#)

18. The White Oak Tree - White Oak Hardwood Information

Hardwood Flooring Species: The White Oak Tree

Useful Information about The White Oak Hardwood

The **White Oak Wood** is one of the most useful Hardwood at the **Hardwood Industry**. It is a very long-lived tree that can live up to 500 years... In the forests, the white oak tree can reach to a magnificent height of 100' feet tall with an average trunk size of 3' feet. The white oak also known for its mystic, beautiful structure, with his developed broad-top and limbs striking out at any direction, making the width of the tree close or even bigger than its height. The **White Oak** Wood Tree is a native tree to the eastern states of the United States and to southeastern Canada. The White oak is also the **State Tree** of **Connecticut, Illinois** and **Maryland**.



Botanical Name: *Quercus spp.* (White Oak Family Name)

White Oak Tree Origin Country: The White Oak Wood can be found mostly at the **Québec Province** in **Canada**, and in the states **Minnesota**, **Texas** and **Florida** at east of the **United States**.

Other White Oak Wood Species and Names: There many kinds of **White Oak** wood species, but only 8 of them can be used for a commercial use. The most famous among them is the ***Quercus alba***.

White Oak Wood Look and Color: The heart of the **White Oak Wood** has a light brown color, somewhat creamy brown. Some **White Oak Hardwood** boards can contain a little pinkish or light gray tint. The white oak sapwood has a very light creamy color. **The White**

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Oak Wood has a small variation in colors, a lot less than the famous hardwood species – the red oak.

White Oak Wood Grain Texture: The **White Oak** wood has a very open-straight grain structure, with more rays than the red oak wood has. Occasional crotches, swirls and burls can be seen a lot more often at the white oak hardwood.

White Oak Hardwood Hardness and Moisture Durability: On the [Janka Hardness Test](#), the **White Oak Hardwood** gets the score of 1210 – about 6% percent softer than the red oak. On the Moisture resistant and the [Dimensional Stability](#) the white oak wood gets an average score of 10.5 which is 22% percent less stable than the benchmark red oak wood.

White Oak Wood Uses on The Wood Industry: The **White Oak** is a very special wood in its way. White Oak has a very close cellular structure which doesn't allow any water to go through. Therefore, the white oak hardwood is already being used for ages for making ships, cooperage, agricultural implements and a lot of outdoor furniture. The White Oak Wood has also a relatively rot resistant, what makes white oak furniture and the white oak wood very valuable over the years. The White Oak has a very important part at the hardwood oak flooring industry. About 15% percent of all the commercial hardwood flooring industry in the United States is made from the white oak. **White Oak Flooring** is one of the most famous and valuable hardwood flooring on the market. It is probably the oak flooring that will stay with the best condition over the time.

To see examples of **White Oak Flooring** & To get **FREE White Oak Wood Samples** please choose one of the following links:

[WoodCrafters Solid White Oak Flooring With Natural Stain](#)

[WoodCrafters Hand-Scraped Engineered White Oak Floor With Mahogany Stain](#)

[WoodCrafters Engineered White Oak Floors With Amaretto Stain](#)

[WoodCrafters Solid White Oak Floor With Golden Stain](#)

19. The Janka Wood Hardness Test - Wood Hardness Scale & Information

Wood Hardness Scale

The Janka Hardness Test

The **Janka Wood Hardness Test** is one of the best methods to measure the stability and the strength of a wood species. There is so much difference between the wood species qualities and while some of the wood species are very hard, strong and dense woods, some of them are very light, easy and soft. It is very useful to know a little bit more about your next hardwood flooring, some helpful information that can help you choose and decide what wood species is best for you and your needs.

So What is The Janka Wood Hardness Test???

The **Janka Wood Hardness Test** is a way to check how hard a wood species is and how resistant it can be to embedded penetrating items. In this Hardness Test, a steel ball in the size of 0.444" inch. Diameter, is forced with power to the hardwood. The target in this hardness test is to embed half of the steel ball diameter into the wood species. With softer wood species, the power required to penetrate the ball to the hardwood species is a lot smaller than with harder hardwood flooring wood species.

For example, according to this test, the cherry wood hardness score is only 950 while the birch wood hardness score is 1260 at this hardness scale.

The Wood Hardness Scale

For your convenience, this is a complete wood hardness scale with all the wood species you will find on our [Hardwood Flooring Online Store](#), and their hardness score, according to this hardness test.

Each Wood species contains a link to its wood species page with more useful information, pictures and examples of hardwood flooring for this wood species.

Higher score = Harder hardwood

<u>Hard Wood Species</u>	<u>Wood Botanical Name</u>	<u>Janka Wood Hardness Test Score</u>
Brazilian Teak (Cumaru) Wood Hardness	<i>Dipteryx odorata</i> , Tonka Bean	3540

<u>Brazilian Cherry (Jatoba) Wood</u> Hardness	<i>Hymenaea courbaril</i>	2820
<u>Strand Woven Bamboo Wood</u> Hardness	<i>Phyllostachys spp.</i>	2820
<u>Pilang (White Bark Acacia) Wood</u> Hardness	<i>Acacia leucophloea</i>	2400
<u>Santos Mahogany Wood</u> Hardness	<i>Myroxylon, balsamum</i>	2200
<u>Merbau Wood</u> Hardness	<i>Intsia spp.</i>	1925
<u>Hickory Pecan Wood</u> Hardness	<i>Carya illinoensis</i>	1820
<u>Maple Wood</u> Hardness	<i>Acer saccharum</i>	1450
<u>Natural Bamboo Wood</u> Hardness	<i>Phyllostachys spp.</i>	1380
<u>White Oak Wood</u> Hardness	<i>Quercus spp.</i>	1360
<u>Northern Red Oak Wood</u> Hardness	<i>Quercus spp.</i>	1290
<u>Birch Wood</u> Hardness	<i>Betula spp.</i>	1260
<u>Carbonized Bamboo Wood</u> Hardness	<i>Phyllostachys spp.</i>	1180
<u>American Black Walnut Wood</u> Hardness	<i>Juglans nigra.</i>	1010
<u>Black Cherry Wood</u> Hardness	<i>Prunus serotina.</i>	950

20. Wood Dimensional Stability Test - Hardwood Floors Species Chart

Wood Dimensional Stability

Hardwood Flooring Moisture Stability Test

There are so many wood species out there, that being used for hardwood flooring, with so many differences in qualities and features. It is very important to know as much information that you can about your next hardwood flooring, so you can decide and choose the best and the most suitable floor for your needs. This information will be very useful and important if you live in a place with high relative humidity, something that probably will cause big changes in the hardwood flooring shape.

So What is The Wood Dimensional Stability Test?

The first thing we need to remember when talking about the moisture resistance of the hardwood for dimensional changes, is that **All The Hardwood Floors Species Shrink and Expand** with moisture and humidity changes! The question is how much...? The Wood Dimensional Stability Test, is a test that comes to describe how much a certain wood species is stable for moisture, and stays in the original shape of the hardwood. The score of each wood species, represent the percentage (%) of tangential shrinkage from green to oven-dry moisture content for all the listed wood species.

The Hardwood Dimensional Stability Scale

For your convenience, this is a complete wood dimensional stability scale for all the wood species you will find on our [Hardwood Flooring Online Store](#), and their dimensional stability score, according to this test.

This is the time to remind you that those numbers reflect the dimensional stability of Solid Hardwood Flooring Species ONLY. Engineered Hardwood Floors have much higher dimensional stability, tanks to their engineered construction and way of manufacturing. Bamboo Wood is not listed from the same reason – it has a better dimensional stability to moisture thanks to its engineered way of manufacturing.

Each Wood species contains a link to its wood species page with more useful information, pictures and examples of hardwood flooring for this wood species.

Lower is Better

<u>Hard Wood Species</u>	<u>Wood Botanical Name</u>	<u>Wood Dimensional Stability Test Score</u>
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Merbau Wood Dimensional Stability	<i>Intsia spp.</i>	4.6
Santos Mahogany Wood Dimensional Stability	<i>Myroxylon, balsamum</i>	6.2
Black Cherry Wood Dimensional Stability	<i>Prunus serotina.</i>	7.1
Brazilian Teak (Cumaru) Wood Dimensional Stability	<i>Dipteryx odorata,</i> Tonka Bean	7.6
American Black Walnut Wood Dimensional Stability	<i>Juglans nigra.</i>	7.8
Brazilian Cherry (Jatoba) Wood Dimensional Stability	<i>Hymenaea courbaril</i>	8.5
Northern Red Oak Wood Dimensional Stability	<i>Quercus spp.</i>	8.6
Hickory Pecan Wood Dimensional Stability	<i>Carya illinoensis</i>	8.9
Birch Wood Dimensional Stability	<i>Betula spp.</i>	9.5
Maple Wood Dimensional Stability	<i>Acer saccharum</i>	9.9
White Oak Wood Dimensional Stability	<i>Quercus spp.</i>	10.5

21. Hardwood Flooring Installation - How to Install Wood Floors?

How To Install Hardwood Floors

Introduction To Hardwood Flooring Installation

The hardwood flooring industry has come a long way over the last few years. **Wood Floors Installation** becomes more approachable and easy to many residential customers that until these days didn't even think about installing the hardwood floors by their own. Thanks to the advanced technology, Hardwood Flooring are a lot more stable, can be installed in a lot more places and come in a bigger variety of wood species, grades and stains.

We at the [AcademyFloor.com](http://www.academyfloor.com) believe that our customers should have the opportunity to read and expand their knowledge about hardwood flooring. By that, you will be able to choose your new hardwood floors and your hardwood flooring installation more wisely, and make it fit exactly to your needs and conditions.

This article will help you to understand the differences between the hardwood flooring installation methods, will help you to choose the right method for you and your hardwood floors, will show you how to prepare the installation process, and of course, it will explain precisely how to install hardwood floors in both of the popular methods.

If you already know what kind of **Hardwood Flooring Installation Method** you are going to use, you can choose one of the following links to continue:

[Preparing the Hardwood Flooring Installation](#)

[Nail Down / Staple Down Hardwood flooring installation](#)

[Glue Down Hardwood Flooring Installation](#)

What Kinds Of Hardwood Flooring Installations There Are?

There are about three common hardwood flooring installations methods. The first one is the **Nail Down Installation**. On this wood floors installation, the hardwood floors are being nailed down to a sub floor, using a [Nails Gun](#). This sub floor usually made of plywood or wood planks underlayment. You cannot nail down directly to a concrete slab, so you must either to put plywood or other wood sub floor, or choose another method.

Over the last years, the staples also came into the hardwood flooring world, and a lot of hardwood flooring contractors and installers started to work with [Staples Guns](#) instead of the nails, thanks to their great strength and durability. Today, there is really not a big

difference between both of those methods, and you should choose whatever you more comfortable with and prefer to work with.

The second, very popular method is the **Glue Down Hardwood Flooring Installation**. This wood floors installation uses a very strong wood adhesive to glue down the hardwood floors to the sub floor. A lot of hardwood flooring installers prefer this flooring installation method, thanks to its simplicity and efficiency. It can be done without buying any expensive tools, and is considered to be a lot easier than the nail down / **Staple Down Installation**. The glue down installation can even be done directly on concrete, what can help you save money on plywood underlayment or on another kind of sub floor.

The last popular hardwood flooring installation is the **Floating Floors Installation**. This is probably the most simple and easy hardwood flooring installation. It can be done by almost anyone. This hardwood flooring installation uses a technology called tongue-and-groove to connect the flooring planks by clicking them one to the other. No nails, staples or glue needed for this hardwood flooring installation. Those floors are usually called laminate flooring and are not real hardwood floors, but might have a very close look to a real hardwood floor.

So What Hardwood Flooring Method Should I Choose?

As it was mentioned before, there are three main methods for hardwood flooring installation. To choose the right method for you, you will have to answer those two questions:

1. What kind of hardwood flooring you are going to install?

2. What kind of sub floor you have at the installation room?

Solid Hardwood Flooring can be installed only with the nail down / staple down installations methods. Solid wood expand and contract when the levels of moisture and humidity are changing, something that happened every year, according to the weather changes. The glue-down method will not give the solid wood floors enough freedom to move, something that might crack, cup or damage the floors in other ways. The solid wood floors also must have a wood sub floor to nail it down to. You cannot nail down or staple down directly to concrete so if you have a concrete slab and you want to install solid wood floors on it, you will have to install a wood sub floor on the concrete slab (usually plywood) and only than, you can continue installing solid wood floors. Of course, if you already have wood sub floor, you will have no problem and you ready to go with the solid hardwood flooring installation.

Engineered Hardwood Flooring can be installed both with the nail down / staple down installations and with the glue down installations. Thanks to today's advanced technology, the engineered wood floors are much more stable to changes at the humidity and moisture levels. On engineered hardwood flooring only the first top layer is a real wood while the other lower layers are not. With this special construction, you are getting much more dimensional stability from your hardwood floors and of course, the ability to install them by using the glue down hardwood flooring installation. You can use the engineered hardwood flooring on every place in your house and with every installation method you will choose. As it said before, glue down installation method can be done directly to concrete slabs, using engineered flooring only, without the need to install a wood sub floor first.

Floating Floors Installation is the easiest, cheapest and simplest flooring installation there is. There is no need to buy adhesives, nails or staples, no need to use expensive and

complicated tools, only 'clicking' one flooring board to another and it's done. The floating floors installation usually can be found on laminate floors only, which are not real wood floors, and consist no real wood at all. Floating floors installation can be installed on any sub floor – wood and concrete as well.

What Grade Level Are You Going To Install Your New Hardwood Flooring On?

Another very important thing that you should check before installing (or even buying) the hardwood floors is on what grade level the hardwood floors are going to be installed on. As we said, **Solid Hardwood Floors** are very sensitive and dimensional unstable when exposed to high levels of humidity and moisture, and to big changes on those levels. Basements for example, are well known for their high levels of moisture and humidity. That's why you cannot install solid hardwood floors in the basement – it will damage the floor and will ruin the whole installation. On the other hand, **Engineered Hardwood Flooring** can be installed on every grade level including basements. Thanks to their engineered structure, they are much more dimensional stable and a lot less sensitive to humidity and moisture changes. **Floating Floors** can be installed at all grade levels as well. Since it is not a real wood, it doesn't react to moisture and humidity changes. Last thing just to clear things out: "**Below Grade**" is defined as any part (any side) of the surface having four inches or more of earth above it.

Hardwood Flooring Installation: To Conclusion

While choosing the right installation for you, you will have to go through and check some things. Each hardwood installation has its own story. It depends mostly on what kind of hardwood flooring you are installing and where. At most of the times, **Solid Hardwood Flooring Installation** will have to be installed with the nail down / staple down hardwood flooring installation method. If you are installing below ground level you will have to use Engineered hardwood floors or floating floors. Besides those two restrictions, you may choose the most comfortable installation that fits you and your home. **Engineered Hardwood Floors** can be installed on every grade level and by using nail down / staple down and the glue down installations methods. **Floating Floors** (usually laminate floors) can be installed on every grade level.

Now you can go to the next pages regarding to hardwood flooring installation:

[**Preparing Hardwood Flooring Installation**](#)

[**Nail Down / Staple Down Hardwood Flooring Installation**](#)

[**Glue Down Hardwood Flooring Installation**](#)

22. Preparing The Floor for Hardwood Flooring Installation

Floor Preparation for Hardwood Flooring Installation

So you decided to install your new hardwood floors by yourself? We will help you with every step in this whole process. The first step in **Hardwood Flooring Installation** is preparing the sub floor and the installation area for the installation process.

Floor Preparation is just as important as Installing The Floor itself. Bad flooring preparation can and probably will cause defects and problems with the hardwood floors. You might not be able to see those problems right after the installation but after a few weeks or months the hardwood floors will loosen from the sub floor and will start to squeak and making strange noises. Bad floor preparation and **Glue Down Installations** will result with popping sounds. **Nail Down Installations** will result with endless squeak and pop sounds. From the other hand, with floating floors installation and poor floor preparation the defects will be noticeable immediately as squishy feelings under the foot.

First Steps In Floor Preparation for Hardwood Flooring Installation

First thing you need to do before starting the **Hardwood Flooring Installation** is to clean up your room or area of installation. Remove all cabinets, tables, beds and everything that is in the room a make a clear empty surface. You probably will have to remove all the moulding, base boards and maybe even your door. You might need to remove your exiting flooring, depend on what flooring type you have and what kind of hardwood flooring you are going to install. **Solid Hardwood Floors** for example must be installed on a wood sub floor. **Engineered Hardwood Flooring** can be installed on concrete, vinyl surfaces and wood sub floors as well.

Another important thing you **MUST** do prior the installation is to let your new hardwood floors to acclimate to the room temperature and humidity. We recommend opening the hardwood flooring boxes on the area of installation or on a room with similar levels of humidity, and let the hardwood boards to acclimate for at least 72 hours before installing.

You also need to keep the relative humidity of the installation area during the hardwood flooring installations at between the levels of 45%-65% percent. You may use a heating or air condition systems to keep the desired humidity.

Floor Preparation With Wood Sub Floor

Wood sub floors must be clean, swept, free of waste, grease, paint, oil and other debris. You must make sure that the wood sub floor is perfectly structurally sound. You must nail, screw or staple any squeaking or loosen areas. Replace any damaged sub floor, do not leave it untreated. The minimum plywood thickness require for plywood sub floor is 5/8" inch. We strongly recommend using 3/4" inch thick plywood. Plywood sheets should be laid with grained outer plies at perpendicular angles to the floor joists.

Another important thing to check on wood sub floors is the moisture content. Moisture levels mustn't exceed over 16%! You can use a **Moisture Meter** to check your wood sub floor for moisture content.

The next thing in the preparation process, before starting to install the hardwood floors is to check the flatness of the wood sub floor. The sub floor must be flat, free of nails and staples. The height variation cannot be bigger than 1/8" inch over 6' fit. You must sand high spots and fill lower ones. We recommend using an **Edger Sander**. It can easily run in small and dense areas, sanding only small desired areas.

Remember: Good Floor Preparation is 100% Necessary for a Good Hardwood Flooring Installation

Floor Preparation with Concrete Sub Floor

The same as with the wood sub floors, the concrete slab must be clean from dirt, grease, paint, oil and other debris. Cracks must be filled with appropriate material. The concrete slab must be flat and smooth, structurally sound with no high or lower spots. You will have to sand those high spots to make them flat with the rest of the floor. Low spots must be filled with cement based material or a self leveling cement with density of at least 3000 PSI.

The variation must be lower than 1/8" inch over 6' feet of concrete.

Besides the leveling issue, concrete slabs must be checked for moisture content prior the hardwood flooring installation. Moisture content must not exceed 31 lbs. over 100 sq. ft emissions or 14% percent of moisture. You can use a [Moisture Meter](#) to test your concrete slab for moisture content. If moisture is present you will have to run another test called

Calcium Chloride and **pH Alkalinity Test**. This test is to determine the moisture emissions through the concrete slab of the moisture and alkalinity in the concrete floor. The maximum acceptable levels for the **Calcium Chloride** test are 3-lbs. /24 hours/1000 sq. ft for moisture emissions. As for the **pH Alkalinity** test, a reading of 6-9 on a pH number scale of 1-14 is acceptable.

DO NOT INSTALL your hardwood floors on this concrete slab if you are getting high readings in your tests. You will have to use a [Sealer](#) to seal the concrete properly in order to correct those humidity and calcium levels.

Important thing you should know is that **Solid Hardwood Floors** cannot be installed directly over concrete slabs. In order to prepare the concrete to solid hardwood flooring installation you must install a minimum of 3/4" thick plywood with minimum of 6 mil polyfilm vapor barrier paper.

Always Remember: Successful Hardwood Flooring Installation Starts with Appropriate Floor Preparation!

After you done preparing the flooring you can continue with your **Hardwood Flooring Installation**

Please choose one of the following links for more instructions and information:

[Nail Down / Staple Down Hardwood Flooring Installation](#)

[Glue Down Hardwood Flooring Installation](#)

[Introduction to Hardwood Flooring Installation](#)

23. Nail Down / Staple Down Hardwood Flooring Installation

How To Install Hardwood Floors

Nail Down / Staple Down Hardwood Flooring Installation

While most of us will hire a professional hardwood flooring installer, some of you probably thought about installing the hardwood floors by yourself. It might look like a very complicated job, maybe even scary somehow, but as with most of the regular hardwood flooring installation, it can be done by a person with basics in operating powered tools, basic knowledge in general tools, and some self-learning ability for some new tools.

In this article we will explain how to **Install Prefinished Hardwood Floors**, Solid Hardwood Floors as well as Engineered Hardwood Floors, using the staple down / nail down wood floors installation method. **Unfinished Hardwood Flooring** can be installed on the same exact way, but at the end, it has been sanded and finished as well.

If you are not sure what kind of hardwood flooring installation method you need to use, or you want to read some more information about **Hardwood Flooring Installation** you can choose one of the following links from our **Hardwood Flooring Installation Academy**:

[Hardwood Flooring Installation – Introduction](#)

[Hardwood Flooring Installation – Preparation](#)

[Glue Down Hardwood Flooring Installation](#)

What is The Difference Between Nail Down to Staple Down Installation?

The first powered tools from this tools group were the nails guns – the nailer. Most of the hardwood floors installers were using these pneumatic or manual nailers. Over the last few years the staples guns become more accessible, more high tech and a lot more comfortable for hardwood flooring installations. That's when they become so popular with wood floors contractors and installers. Today the wood floors contractors are using both of the ways, what they are more familiar with, what they prefer, without any real big difference between the two flooring installation methods.

First Steps in Nail Down / Staple Down Hardwood Flooring Installation

First thing you need to know about hardwood floors is that they expand and contract according to moisture and humidity changes. That's why they need to be acclimated at least 72 hours at the same room where you are going to install the wood floors. That way, the floors can get used to the temperature and humidity levels of the room. It is also recommended to open the boxes as well at this acclimation process.

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The normal way of how the hardwood floors planks (or strips) will be laid down is perpendicular to the house wood joists.

First step after preparing the hardwood flooring installation is to mark a reference line, parallel to one wall, usually the doorway wall. This step is well described at the preparation page. Make sure this **line is accurate and straight**, because a mistake here can make the all installation harder and problematic.

After making the first reference line draw another line, parallel to the reference line, and mark the place where all the boards will end.

If you are installing hardwood floors all over your house, you can simply run the hardwood boards through the doorway exactly the same as you would do on the room. If this flooring installation will be only on one room, it is recommended to install some perpendicular boards under the doorway, as it will be described later on.

The next line you are going to draw is a parallel line to the wall, marking the edge where the first hardwood boards are going to be installed. It is very important to leave at least **1/2" inch. (1.27 cm) distance from the wall**, letting the wood enough space to expand.

For your first hardwood boards, try choosing the straightest pieces you can. You might have to cut (notch) the very first flooring board (or maybe others) to go under the door jamb, or from the other hand, to cut the door jamb and/or the actual door.

Because of the size of the nails gun or the staple gun, you are probably going to have difficulties using it near the wall, while installing the first lines of hardwood flooring boards. In that case you will have to use manual nailing or screwing the first hardwood planks to the sub floor. We recommend drilling small holes (at the size of the screw or nail) all the way and then using a bigger size (about 3/8" inch. diameter) to drill only half way in, making room to the screws or the nails and their heads. By doing it that way, you are creating deep counter-bore, so the nails / staples heads will be quite far inside the hardwood plank. You may cover those holes later by using a 3/8" diameter plug cutter, which cuts wood plugs at the same size of the drills.

Starting The First Row at Nail Down / Staple Down Hardwood Flooring Installation

The very first hardwood board needs to be installed parallel to the reference line we made earlier. It is very important to make it straight so that the next boards will be straight and parallel as well. Don't forget to keep at least 1/2" inch. space between the wall and the boards. We recommend screwing the first pieces of the hardwood floors directly to the floor joists. Mark them prior the hardwood flooring installation and then drill the holes in the hardwood boards at the right places.

Next, continue the first line of the hardwood boards by placing more pieces and screw them to the sub floor as well, until you reach the edge of the room. Make sure that the others pieces are straight and parallel to the reference line as well as the first board. You can use other hardwood plank as an alignment plank. Connect it in the way that it will be connected to both of the boards (the first already screwed one and the other new one) and then use a hammer to hit it, making sure it is becoming straight and perfectly aligned with the first piece. You can also use a ply bar by pressing one side against the wall, and the other one against the hardwood plank, and by that pushing the hardwood piece toward the other

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plank. After you make sure the hardwood planks lined straight you can remove the alignment plank.

Do not use the ply bar directly against the wall! It will damage the wall. You can use a small piece of hardwood, putting it between the wall and ply bar.

Again, make sure that the first line is straight and completely parallel to the reference line. If these first two boards are not perfectly in line, the entire flooring job would be flawed and full of gaps.

Doorway Threshold Hardwood Flooring Installation

If you are installing the hardwood floors only in one room, or you have other kinds of flooring outside this room, you will have to edge this flooring installation with a threshold or a piece from the wood floors.

Measure and cut a hardwood piece to fit the doorway. Put it in the place under the door jambs. Use a Speed square to position the flooring board perpendicular to the existing row and mark the location of the threshold. Since we do not have anything to hold the threshold in place while we fasten it to the floor, we recommend to connect it to another hardwood piece and then screw this piece to the sub floor. In this way, the threshold will stay in place without movements when fastening it down to the sub floor. After nailing down / stapling down the threshold to the sub floor you can remove the hardwood piece you screwed earlier to the sub floor. You must be very accurate here, or all the pieces that connect to this threshold will reveal big gaps between the wood boards.

The Fun Part: Nail Down / Staple Down The Hardwood Floors

After you done installing the first line successfully, it's time to start installing the rest of the floor..

For the next rows installation just lay down the pieces, connect them and nail down / staple down them to the sub floor using nails gun or a stapler, pneumatic or manual.

It is very important not to put the boards' ends too close to each other. You must keep at least 6" inches distance between the hardwood flooring boards edges when installing them, so plan wisely your next moves.

If you are having troubles putting the boards completely straight you can use an alignment plank like we did at the first row. You can also use the ply bar to pull the planks together, make them tight together.

Another useful tool you can use is the powerjack. It is a tool that helps you pull the hardwood flooring plank to the right direction with minimum effort by you.

The Procedure of Putting Hardwood Floors Planks In Place

While installing hardwood flooring you have to put large amount of boards in place, and to do it as fast and right as you can to keep the whole installation efficient. The first step of doing it right is to place one tongue end of a new board into the grooved end of the previous piece. Then use a hammer to punch the piece towards the previous row. Then, do the same on the other side.

Never hit the hardwood board directly! Always use a small useless piece to do it. After putting both of the edges in place, use a pull bar, pry bar or the powerjack to tighten the hardwood piece to the previous row, closing the gaps between the two boards. You may have to tap it again on some places, to make sure that there are completely no gaps.

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The Procedure of Nailing Down / Stapling Down The Hardwood Floors Planks

Before you staple down / nail down the hardwood floors planks you must make sure that they are on place, with no gaps or edges not in place.

The nailing down / staple down work sequence supposed to be about one fastening every 16" inches. If you are using long enough nails (or staples) try fastening them to the places where the joists are going through.

On your last rows you may won't be able to use the stapler, because there will be not enough space between the boards and the wall. Then you may use an edger nails gun, or nail down manually. If you are choosing to do it manually you might need to drill the holes first.

On the last row, screw the boards to the sub floor (try hit the joists), exactly the same as you did with the first row.

Tools Needed for Prefinished Hardwood Flooring Installation:

- Pneumatic / Manual **[Floor Nailer](#)** / **[Floor Stapler](#)**
- **[Nails / Staples](#)**
- Drilling Machine
- **[Air Compressor](#)**
- Power Miter Saw
- **[Pneumatic Finish Nailer](#)**
- Circular Saw
- Ply Bar / **[Pull Bar](#)** / **[PowerJack](#)**

24. Glue Down Hardwood Flooring Installation

How To Install Hardwood Floors

Glue Down Hardwood Flooring Installation

While most of us will hire a professional hardwood flooring installer, some of you probably thought about installing the hardwood floors by yourself. It might look like a very complicated job, maybe even scary somehow, but as with most of the regular **Hardwood Flooring Installation**, it can be done by a person with basics in operating powered tools, basic knowledge in general tools, and some self-learning ability for some new tools.

In this article we will explain how to install Prefinished Hardwood Floors, **Engineered Hardwood Flooring** only, using the glue down wood floors installation method.

If you are not sure what kind of hardwood flooring installation method you need to use, or you want to read some more information about **Hardwood Flooring Installation** you can choose one of the following links from our **Hardwood Flooring Installation Academy**:

[Hardwood Flooring Installation – Introduction](#)

[Hardwood Flooring Installation – Preparation](#)

[Nail Down / Staple Down Hardwood Flooring Installation](#)

[Introduction to Glue Down Hardwood Flooring Installation](#)

Glue Down Installations is considered to be a lot easier than the nail down / staple down hardwood flooring installation. It can be done as a **Do-It-Yourself** Installation by home owners, pretty much by just following the installation instructions. The biggest advantage of the glue down hardwood flooring installation is the fact that it can be installed on almost any sub floor, unlike the nail / staple down installation which must be installed on a wood sub floor. You can install your hardwood floors directly on concrete slabs, tile, ceramic and of course wood and plywood underlayments. **Glue Down Installation** is pretty much limited to the engineered hardwood flooring only. We are strongly not recommended to use the glue down installation with solid hardwood floors since the flooring adhesive will not allow the solid floors to expand and contract as it suppose to. Thanks to the multi-layer structure of the engineered hardwood flooring we can use a flooring adhesive to glue down the hardwood floors in an easy process.

First Steps in Glue Down Hardwood Flooring Installation

First thing you need to know about hardwood floors is that they expand and contract according to moisture and humidity changes. Although the [Engineered Hardwood Floors](#) are much more dimensionally stable, we still recommend that you leave the hardwood floors boxes open and let the wood be acclimated at least 72 hours at the same room where you are going to install the wood floors. That way, the floors can get used to the temperature and humidity levels of the room.

You must check your sub floor prior to installation. Make sure your sub floor is clean from oil, grease, dirt, sealers, wax or old adhesive. After cleaning the sub floor you must check that the sub floor is well leveled and straight. Maximum acceptable variation of the sub floor is 1/8" in 10 feet. If you are getting higher variation you **Must** level the floor to be straight, using a [Self Leveling Underlayment](#) or a similar product. Another thing you will have to check is the relative humidity of the sub floor. It must be dry before starting the glue down hardwood flooring installation. It is highly recommended to check the sub floor with a [Moisture Meter](#). The moisture content in plywood sub floor for example should be between 6% to 12% percent. If you have a plywood sub floor that has a smaller thickness than 3/4" inch, you must add another plywood sheet layer to achieve a minimum thickness of 3/4" inch. When installing over ceramic tile or vinyl tile, make sure that there are no loose tiles and fill grout lines with a [Cement or Latex Based Underlayment](#). Lightweight cement sub floor needs to be checked for density and hardness. Try scraping a coin or key across the concrete sub floor. If the surface powders easily, do not install any hardwood flooring directly to this concrete slab!

Structurally sound wood floors will not have movement or deflections. It is a very important thing to check the sub floor before starting glue down the hardwood flooring since sub floor movement or improper sub floor installation will eventually cause squeaking. For more information about preparing glue down hardwood flooring installation please visit our [Hardwood Flooring Installation – Preparation Page](#).

As most of the natural wood floors may vary in colors, we recommend opening some wood floors boxes and blending some of the wood planks so that you will get a better uniform appearance across the complete floor.

Starting The First Row at Glue Down Hardwood Flooring Installation

For the first row at the **Glue Down Hardwood Flooring Installation** first pick a wall to start from. Usually we recommend on the outside wall as it is more likely to be straight and square with the room. Start the glue down installation by measuring the width of two hardwood planks from the wall. Mark a line parallel to the wall. Spread a hardwood flooring adhesive over the area that you just marked using a trowel. There are some differences between the trowel shapes, and usually hardwood flooring installers choose the one that they are more used to and familiar with. As for the hardwood flooring adhesive we recommend using a hardwood flooring adhesive manufactured by a well known adhesives company like [Bostik](#), [DriTac](#) or [Fortane](#). Now, let the hardwood flooring adhesive to set for about 30 minutes. The first row at the glue down hardwood flooring installation is the most important. You must install the flooring planks straight to the wall making a proper straight alignment. Misaligned hardwood flooring planks can ruin your all hardwood flooring installation. Some hardwood flooring professional installers use a nail gun to nail some of the first planks to the sub floor, making sure that it is straight and that it will not move. You can use a [Tapping Block](#) to tap a wood plank's tongue to the other flooring board's groove.

Since the wall is not always straight, you might have to cut some of the boards to make them fit properly.

Doorway Threshold and Moulding at Glue Down Hardwood Flooring Installation

If you are installing the hardwood floors only in one room, or you have other kinds of flooring outside this room, you will have to edge this flooring installation with a threshold or a piece from the wood floors.

First of all, remove all the existing threshold moulding, skirting and base from the doorway. You will install them later. Measure and cut a hardwood piece to fit the doorway. Put it in the place under the door jambs. Now, use this hardwood flooring piece as a guide piece and cut the lower door casing leaving about 1/8" inch. space between the door and the hardwood floors. You may use a [Hand Saw](#) or a [Power Jamb Saw](#). Try to find hardwood flooring planks that are matching to the threshold and base shoe moulding near the doorway with their color and grain.

Glue Down The Hardwood Floors

After gluing down the first two rows, you are now ready to continue to glue down the rest of your hardwood floors. Start by spreading 2-1/2' to 3' feet of the hardwood flooring adhesive, from the first rows to the length of the room. Be careful not to lay more adhesive that can be covered in about 3 hours. If the flooring adhesive has already dried and cannot be transferred to the hardwood flooring planks, use a [Scrapper](#) to remove the adhesive, apply the glue again and then glue down the floor properly. Make sure that the space between the hardwood flooring planks' edges to their parallel rows' hardwood flooring planks ends is not smaller than 6" inches. Try using random length planks while gluing down so that the planks edges will not meet. Now, those rows can be installed while the adhesive is still wet. Just place the planks on their place, use a tapping block and glue them down to the sub floor. We recommend using masking tape perpendicular to the hardwood floors, every several rows, just to lay the hardwood flooring planks in place.

Gluing down the last row of the hardwood floors is exactly the same as all the other rows. You might have to cut the planks of the last row to make them fit properly. You probably will have to cut the last row tongue as well.

Cleaning and Finishing The Glue Down Hardwood Flooring Installation

While installing the hardwood flooring planks with the glue down installation method, you need to be careful about the flooring adhesive. Watch for adhesive spits and clean them quickly with the appropriate [Adhesive Remover](#), as it might be very difficult to do it after the adhesive is dry. After the floor installation is done and cleaning is finished, inspect the floor for any nicks, scratches and planks that may have moved during installation or need any additional attention. You can accept about 8 to 12 hours of drying time before trying to walk on the hardwood floor. Dry climate areas may require a longer drying time. You can remove the masking tape about 24 hours after the glue down installation is completed. To protect your hardwood floors during other construction jobs use a felt paper and lay it down on floor, taping it to the skirting boards. DO NOT use plastic or polyethylene to cover the floor since they will trap moisture. Covering materials must allow the floor to breathe and acclimate with the room temperature and humidity.

[Go Back To The Hardwood Flooring Installation Introduction Page](#)

25. Installing Laminate Flooring

How To Install Laminate Flooring

All You Ever Wanted To Know About Installing Laminate Flooring

Laminate is easy to install, stands up to all kinds of wear and tear, and is relatively inexpensive. It doesn't require removal of any type of existing flooring except carpet, and in most cases, no special prep work is needed to install a floating laminate floor.

Before You Install a Floating Laminate Floor

You will need to purchase both laminate floorboard and foam underlayment, which acts as a cushion for the flooring, giving it resiliency and dampening sound. To determine how much laminate flooring and foam underlayment you'll need to buy, multiply the length of the room by the width. That's your square footage. Each box of laminate flooring is labeled to tell you how many square feet it will cover. Buy 20% more than you need, so if your room is 400 square feet, buy 480 square feet. The extra flooring will cover any miscalculations or mistakes. To trim the flooring pieces, use a handsaw or carbide-tipped blade, and cut into the good side of the flooring so that any tearout or splintering won't mar the face of the board. Because they have interlocking tongues and grooves, most laminates don't require glue. If there's any chance of water or dampness, such as in a mudroom, entryway or kitchen, run a light bead of waterproof wood glue along each tongue before mating it to the groove.

What You'll Need to Install Laminate Flooring:

- Laminate flooring
- Foam underlayment (sold in rolls, usually 36 to 42 inches wide)
- Six-mill plastic sheeting if installing over concrete (sold in rolls, usually 10 feet wide)
- Duct tape
- Installation kit: pull bar, tapping block, spacers
- Rubber mallet
- Handsaw or a carbide-tipped blade installed on a power saw
- Flush-cut saw for undercutting doorjambs
- Threshold
- Waterproof glue (optional unless installing in an area that may get wet)
- Knee pads for comfort

Preparing the Floor

If you've got another type of flooring, this is the time to get rid of it. Pull up your old carpet and padding. Remove all of the tack strips around the room's perimeter. You may need to scrape the floor to get rid of any padding sticking to it. Vacuum it well. If there are any noticeable dips, level them out. On a concrete slab, thinset may be skimmed on it. Repair plywood subflooring if applicable. Remove the baseboards. You may be able to save these if you are careful. Now use the coping saw to cut off the bottoms of door jambs, case openings, etc. This will probably be 1/4" to 3/8" dependent on the combined thickness of the laminate and underlayment pad. It is recommended to buy the thicker pad; it is well worth the added expense. In order to know how much laminate flooring and underlayment pad to buy you will need the square footage. To get this simply measure the area's footage right to left and then forward and back. Multiply those figures together and that is your square footage. It is prudent to add at least 5% to that figure for scraps.

Install your laminate flooring

The first thing to do is roll out the underlayment pad. Connect the pieces together with wide, clear, plastic tape. How your laminate planks connect depends on the brand you buy but they are all rather simple; most simply snap together. Remember to stagger the joints. Laminate flooring is a type of "floating floor", meaning that it is all connected to itself but not to the house. With this in mind, leave 1/4" clearance at each wall. On the initial wall where you start, use spacers that you can pull out before installing the baseboards. As you go along you will need to use your mallet and pull bar to snug things up. A few gentle taps will do. Things will get tricky as you go through doorways; the manufacturer's instructions most likely will not tell you about this because it impedes sales to DIY'ers. In some circumstances the best solution is to use your utility knife to trim the snapping connections on the adjoining planks so that they can slide together. In this case, use a few drops of wood glue to keep them together.

Finishing up - Install the Laminate Baseboards

Once you're done with installing the laminate flooring planks you can get on your baseboards. If you've been careful with the removal you can reuse them. Otherwise, cut and install new baseboards. Miter and caulk all joints. Remember not to nail into the planks – this is a floating floor. If you find you have cut some planks too short and the baseboard doesn't cover adequately, don't fret; just install quarter-round at the floor line.

Tips

Keep the leftovers in case you need to make a repair.

The easiest way to make detailed cuts for pipes and other obstructions is with a handheld rotary tool, such as a Dremel, with a cutting bit installed.

Pull boards from several boxes at once to mix and hide any color variations.