

History of Bamboo Flooring

The most common images one conjures up when thinking of bamboo is those wonderful pictures of the giant pandas held in a zoo in China, munching away on lovely fresh bamboo stalks. Bamboo is actually a grass though with modern manufacturing processes, is able to be turned into highly attractive, durable and versatile bamboo flooring for homes, stores, offices and restaurants.

Bamboo flooring history probably dates back millennia, to when ancient Chinese peasants used it in its most rudimentary form – slashed and placed on the ground – to cover the dirt and keep their homes clean and hygienic.

The use of bamboo as a hard surface, commercially available flooring material is a relatively recent development and started in the early 90's in Southeast Asia (primarily China). About 10 years later, it spread to Europe and North America where its popularity has steadily grown as the technology has advanced. Today's applications are far more extensively engineered, of course, and the material is enjoying a surge in popularity as more and more homeowners recognize it for the advantageous product that it is.

For Eastern cultures, bamboo has been a symbolic material for many hundreds of years. It variously represents good luck, longevity, strength, resiliency, flexibility and nature itself. Our modern sensitivities appreciate these virtues and particularly the Feng Shui philosophies have come into their own as a major consideration in construction and interior design. With this in mind, it's no wonder that the history of bamboo flooring has seen it become an important choice for home owners and for those decorating their business premises.

Since the world is beginning to pay more attention now than ever before to the issues of ecological sustainability and renewable resources, bamboo flooring has been one of the star performers amongst products of its ilk.

Whereas once, traditional timbers such as cedar, oak and rosewood were highly prized, the movement has swayed towards materials that can be regenerated without causing scars upon the environment. Plantation timbers were the first step towards this understanding but now, bamboo has stepped up to claim best and fairest.

In the history of bamboo flooring, at no time has its outstanding ecological soundness been more apparent than now. With everyone talking about offsetting carbon emissions and not razing vital rainforests to bare earth for the sake of the world's future, it's no surprise that a natural material that is able to be harvested within five years and then re-grown, is so sought after.

Cutting down fewer trees by far, and in their place, using bamboo which is just as attractive, equally as durable and produced with an environmental conscience is bound to have a positive effect on the mind-set of consumers choosing their floor treatments.

Aside from those issues, however, is the fact that bamboo is 'clean and green'. It is able to be manufactured without harmful effluents making their way into the air, soil or water, and due to its lightweight, is more easily transported without the fuel-wasting considerations of much heavier materials. As history evolves, bamboo flooring is making itself known as a true revolution in home décor.

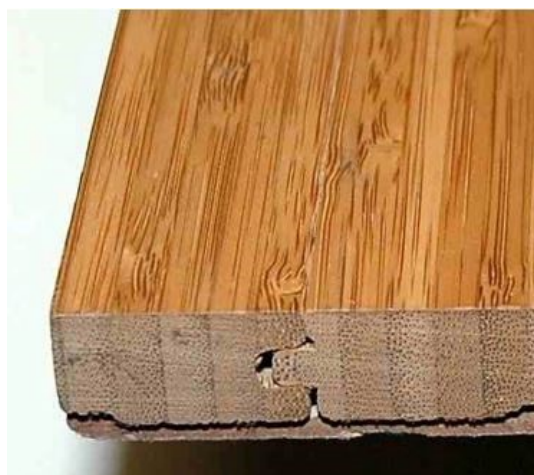
Structure of Bamboo Flooring

There are three basic styles, each with its own distinctive look:

- **Engineered bamboo flooring:** Also known as horizontal cut, engineered bamboo flooring, like engineered hardwood floors, consists of a solid layer of bamboo glued over a substrate. This is the most recognizable bamboo flooring on the market: it's the one in which the bamboo stem looks like it's been flattened out and it's patterned by bamboo's distinctive horizontal ring markings.



- **Solid bamboo flooring:** Made up of solid pieces of bamboo that have been glued together, solid bamboo flooring, also known as vertical cut, is typically stronger than the engineered version. This type of flooring has a thinner overall stripy look created by all the bamboo strips compressed together.



- **Strand-woven bamboo flooring:** By most accounts, strand woven bamboo flooring, in which the bamboo is shredded and then compressed with adhesives, is the most durable of the three. It looks the least like traditional bamboo because the manufacturers can blend colours and lengths to create many different styles.



Pro's and Con's when choosing Bamboo Flooring

Cost

Pro - Competitive alternative to hardwood floors.

Eco-Friendly

Pro - Bamboo is one of the fastest growing plants on earth, with some species growing several feet per day. Bamboo flooring is a renewable and sustainable resource.

Con - Bamboo floor planks are manufactured by slicing or shredding the stalk of the bamboo grass plant, and then adhering the pieces back together using heat, pressure, and a resin based adhesive. This adhesive can release volatile organic chemicals into the air of an interior space over time. Most bamboo floors have this adhesive in them, although the level of adhesive used, and the amount of VOC's emitted will vary depending on how the planks are manufactured

Durability

Pro - This material is slightly more resistant to water damage, stains, and warping than hardwood materials, although it is still a concern.

Hardness: There are certain types of bamboo that can be extremely strong, hard, and durable. Natural, un-carbonized bamboo that was properly harvested and manufactured can be as durable as red oak. Strand woven bamboo can be manufactured even harder than that.

Con - While a bamboo floor is relatively easy to maintain it is nearly impossible to keep it perfect if it is used regularly. There are a wide variety of things that can cause nasty scratches in the surface of a bamboo floor. High heels, pet claws, and furniture legs can all damage the surface. Small grit and tiny particles of sand or dirt will also cause scratches in the bamboo over time.

Water Damage: As mentioned above bamboo is more resistant to water damage than the average hardwood. However it is still a natural material made of organic elements, and as such excessive moisture will cause it to warp or will allow mould to grow. A flood can severely damage a bamboo flooring installation.

Humidity: If the floor is installed in a very humid area, the moisture in the air can cause the floor planks to plump. In a dry environment, the planks can shrink. In both cases cracks in the bamboo will be the result.

Lack of Hardness: While natural un-carbonized, and strand woven bamboo flooring is relatively hard and durable, bamboo planks that are darker in colour are generally also softer. That is because the carbonization process used to colour the wood also weakens it structurally.

Style

Pro - Bamboo is a trendy flooring material that can elevate the elegance of a space almost instantly.

Repair

Pro - Over time bamboo floors may become discoloured, scratched, or marred. Luckily the surface of this material can be refinished, sanding it down and then reapplying the finishing coats to give it a fresh new look. The amount of sanding that can be done will be determined by the thickness of the planks used.

Con - Can be difficult to refinish

Life Cycle and Bamboo Flooring Warranties

Durable materials require less frequent replacement, generate less waste, and may also realize lower long-term costs. According to manufacturers, bamboo flooring should last a lifetime (30 to 50 years). The one-time costs of installing bamboo flooring should be less than the costs for multiple installations of less durable flooring options. Therefore, over the long-term, the consumer should save money.

Replacing the flooring generates waste, so reducing the rate of replacement also reduces waste generation. Without a single standard measurement for durability, the only comparable data available at this time are the results from standard Janka-Ball Hardness tests (ASTM D1037). Bamboo flooring ranges “from slightly lower than red oak (1290 PSI) to significantly harder— 1130 PSI to 1640 PSI,”⁵ making it a relatively hard material.

Since most bamboo flooring can be refinished, it should have a longer life than less durable flooring options such as carpet and some resilient flooring. Since bamboo has a relative hardness comparable to oak, a very hard, durable wood, and exhibits similar properties to other wood floors, it is assumed to have a life expectancy comparable to wood flooring.