

# Why Choose Bamboo?

Plants and other organisms use photosynthesis to remove carbon from the atmosphere by incorporating it into biomass. While doing so they release oxygen into the atmosphere. Bamboo is, by far, the most efficient plant on this planet at sequestering carbon. It converts carbon dioxide into carbon biomass and oxygen 365 days a year.

Bamboo is harvested and replenished with no impact to the environment. It can be selectively harvested annually and is capable of complete regeneration without the need to replant. Because of its short growth cycle (it grows one third faster than the fastest growing tree), it can be harvested in 3 - 5 years versus 10 - 100 years for most tree woods.

- *With an amazing tensile strength that rivals steel (it can withstand up to 52,000 pounds of pressure), bamboo is a viable replacement for wood and makes for one of the strongest building materials.*
- *Bamboo is an enduring natural resource. It provides income, food, and housing to over 2.2 billion people worldwide. Uses include everything from skyscraper scaffolding to medicine.*
- *Bamboo is a critical element in the balance of oxygen and carbon dioxide in the atmosphere. Bamboo helps reduce the carbon dioxide gasses blamed for global warming.*
- *Bamboo is a renewable resource for agro-forestry production. It is used to produce flooring, wall paneling, pulp for paper, fencing, briquettes for fuel, raw material for housing, clothing and more.*
- *Due to its high nitrogen consumption, bamboo helps mitigate water pollution.*
- *Bamboo instantly imparts a natural & tropical look of beauty.*



TURN THE PAGE TO READ MORE ABOUT BAMBOO....

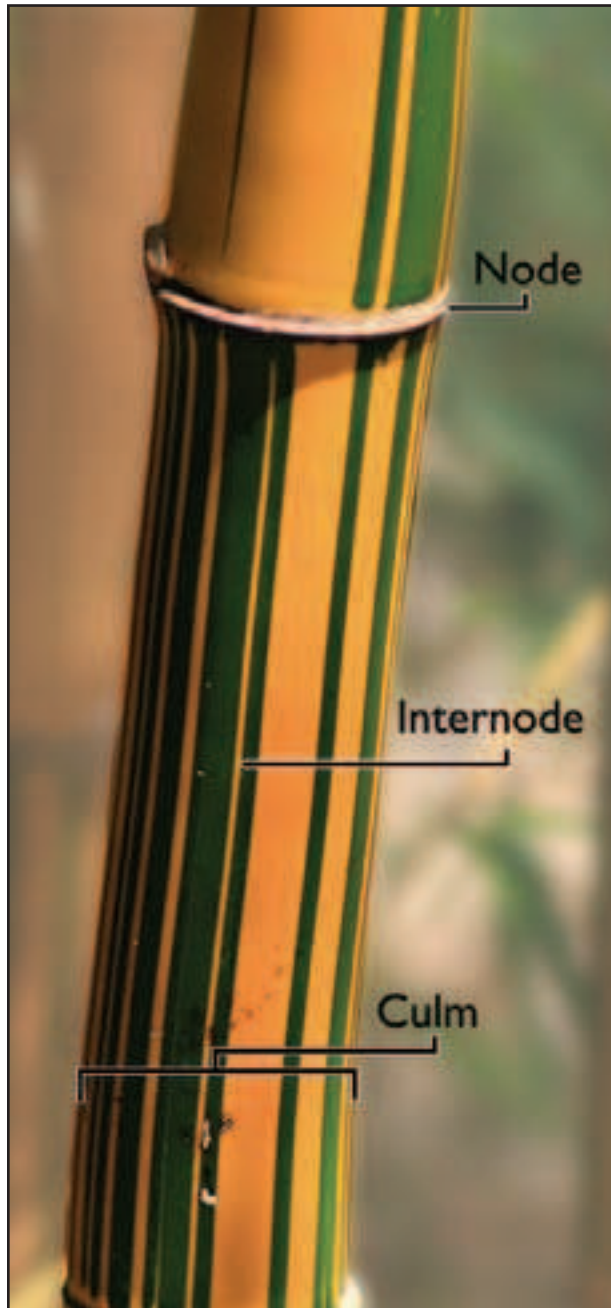
# Bamboo :The Plant

Many consider bamboo to be a wood but is actually a grass. With over 1200 species, this amazing grass can be found on every continent barring the frozen pole regions. Being superior in tensile strength to mild steel and having a weight-to-strength ratio that is greater than graphite, bamboo is the strongest growing woody plant on earth. It is also the fastest growing plant; some species can grow up to two inches per hour and reach heights of 90 feet!

## ABOVE GROUND

Like any other plant, bamboo has an above-ground portion as well as an underground root system. The above-ground portion of bamboo is called the culm, or cane, and stores much of the sugars and nutrients that the plant needs for survival.

Each cane is divided into sections by rings called “nodes”. From each node, new branches grow. The often hollow part of the cane, in between each node, is known as the “internode”. In some species of bamboo (ie. Tam Vong), the internode is almost solid and this type of bamboo is used for building construction and other strength-requiring jobs.



## BELOW GROUND

The underground system of stems are known as “rhizomes” and are very similar in structure to the canes that grow above ground. The rhizomes consist of the same nodes and internodes that the canes do but are spaced much closer together. From these underground nodes sprout new bamboo shoots that will grow into full culms by the end of the growing period.

**RUNNING** - Rhizomes are classified into two types: running (Leptomorph) and clumping (Pachymorph). Running bamboo rhizomes extend in all directions from the main plant. As new nodes are formed, they will either sprout new bamboo shoots or more rhizomes. Those rhizomes will then produce more rhizomes... and well, you can see why it is called “running” bamboo! Running bamboo is often used to control erosion because it does such a great job of securing the soil with its vast root system.

**CLUMPING** - Clumping bamboo rhizomes develop a very compact structure of roots. The rhizome necks are very short and almost solid, thus they form a very dense mass that only grows a few inches in diameter each year. Clumping bamboo does not have the capacity to spread and is safe to plant in a landscape without fear of it taking over.



Clumping (*Pachymorph*) bamboo rhizomes.



Running (*Leptomorph*) bamboo rhizomes w/new shoot.

## GROWTH

Spring time is the most active season for bamboo because that is when new shoots begin emerging from the ground. When those shoots emerge they are already the same diameter that the fully matured canes will be. This is very unlike trees and other plants, as the canes of the bamboo plant do not grow in size as they mature.

Bamboo will grow to its maximum height during the first growing season, usually within several weeks. Larger bamboo species typically grow faster and they have been measured to grow at over a foot per day! Once the canes are near full height, branches emerge and leaf out.

Over the next several years, the fibers within the cane will continue to strengthen. After 3 - 5 years, the canes are fully mature and ready to be harvested for timber use.

Bamboo Hardwoods only sells bamboo flooring that has been harvested in this time frame to ensure the floor is as hard as possible. Anybody who harvests in less than 3 years is providing floors that are softer than they should be so be sure to buy bamboo from a reputable source!



Chinese Walking Stick (*Qiongzhusua tumidissinoda*)

# Strength & Durability

Contrary to popular belief, a bamboo floor will scratch, ding, or dent over time. As much as we'd love to tell customers that our floors are indestructible, it simply isn't true; all flooring is subject to damage. Honestly, bamboo floors, like any other surface made of hardwood, will scratch, ding, and dent under normal use by people and pets. And though we won't promise a bullet-proof floor, we will be happy to share our expertise regarding dings, dents, and scratches.

It's important when choosing your floor to consider the hardness of it. Our floors come in different degrees of hardness and it's important to mention that all bamboo floors are

not the same. **The hardness of a bamboo floor is not totally reliant on the way it is manufactured or the company it comes from, but ultimately, which species of bamboo is used to craft the floor.**

We carefully manufacture our floors to be of the highest quality and we use only bamboo that has matured to it's prime. However each of our floors has a different strength, measurable with the **Janka Ball Test**. Every one of our floors undergoes this testing for strength and durability. The Janka Ball Test measures a floor's strength and resistance to denting. By understanding the results of this test, you can choose a floor that

is going to suit your requirements and lifestyle.

We have gone to great lengths to insure our floors are tested in an accurate manner. We rely on a well-known testing company (PSI, Inc.) to provide us accurate test results. We take pride in knowing that the information regarding our floors is accurate and honest. Should you ever have any questions, we are happy to show you official test results direct from the source.

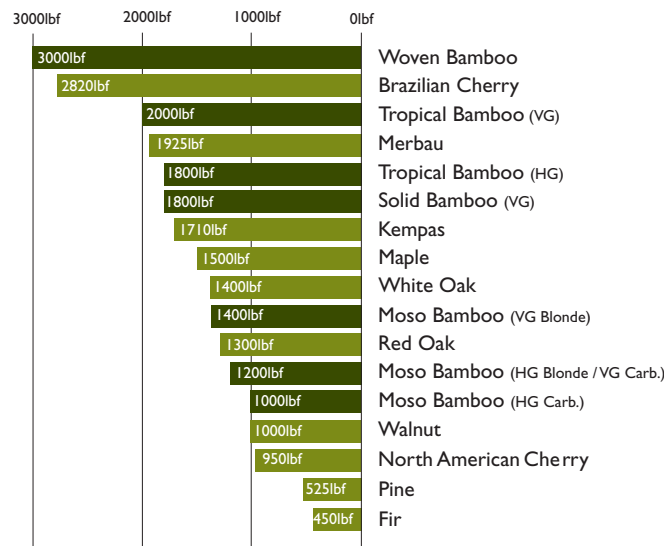
## THE JANKA BALL TEST

The **Janka Ball Hardness Test** measures the force required to drive a .444 inch (11.28mm) steel ball half its diameter into the wood. The test is a good indicator of dent resistance, as well as its hardness for nailing and drilling.

The higher the Janka score, the harder the floor is.



## JANKA BALL SCORES



## FLOORING FINISH

We finish our floors with a high-grade Aluminum-Oxide treatment, also known as UV ceramic, because it has a similar mineral composition to the ceramic in pots, which is a non-toxic UV-cured layer. Above that is a hardened urethane scratch-resistant top coat that can be recoated without sanding.

The overall finish is formaldehyde-free and warranted for 25 years. **That's how great it is!**

# Engineered vs Solid : And More

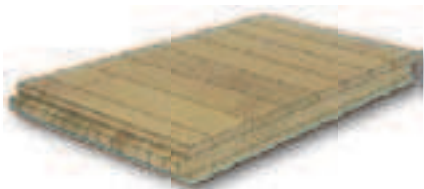
## ENGINEERED FLOORS

An engineered floor, by definition, is cross laminated - like plywood. Often, engineered floors can be confused with Pergo, which is particle board with a picture of wood laminated on it, however our engineered floors are real wood from top to bottom.

Engineered floors were developed in Europe in conjunction with radiant heat, because solid floors do not perform well over radiant heat. Due to the fact that engineered floors are more stable than solid floors *they can be installed in certain environments that solid floors should not be installed.*

Given proper conditions of your sub floor, **engineered floors can be nailed, glued, or floated**, if you're laying floor over slab on grade, or below grade.

Unlike pre-finished solid floors, they are ideal for kitchens and bathrooms, due to the square milling; meaning no v-grooves between planks.



Engineered Floor

## SOLID FLOORS

Solid bamboo floors are ideal for the purist, the person who has a true interest in the material and wants bamboo flooring through and through. The result is a traditional look and a floor that gains character as it ages.

*There are two styles of solid flooring: pre-finished and unfinished.* Our pre-finished floors are milled with bevelled edges for a traditional hardwood flooring appearance. Boards are 3' or 6' in length and are protected with UV ceramic finish. For added stability we recommend a nail-down installation.

Our solid, unfinished bamboo floors are 100% bamboo. We take solid strips of bamboo and press them together, then mill the board into a traditional plank of tongue and groove flooring.

Our unfinished solid flooring is milled with a square edge. This floor needs to be nailed-down and sanded and finished in-place, resulting in one of the smoothest and finely finished floors possible. Unfinished floors are best for accepting stains and can be matched to an existing room's color design.



Solid Floor

## GRAINS

Most bamboo floors are made with a grain preference. This means that there are two types of flooring regardless of species, color, and whether it is solid or engineered. One type is vertical grain (VG), the other is horizontal grain (HG). Is there a difference in quality? Not really. It's more about your own personal taste. However, tests have shown that vertical grain is typically harder than horizontal grain by about 10%.



Vertical Grain



Horizontal Grain

## BEVELS

The edges of individual flooring planks can be manufactured with or without bevels. Floors with square edges will have virtually invisible seams when installed, leaving no "v-grooves" for dust and dirt to collect in. The micro-bevels in our solid, pre-finished floors provide a traditional hardwood plank appearance.

