

# Timber & Bamboo Can Co-Exist

## Timber Products

## Lamboo Products

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| <b>Sustainability</b>  | <b>Sustainability</b>   |
| On Average it takes 40 to 50 years for hardwood trees to mature to harvesting stage. Annual U.S. growth of timber exceeds forest removal. The USDA Forest Service states that there were 98 percent more trees in 2002 than in 1953. | Lamboo's extensive research has isolated 4 species that are high strength, high quality species, thoroughly tested attaining on average 3 times the structural capacity of Timber. Bamboo can be harvested without replanting, which helps eliminate soil erosion. There is no comparison in yield per acre and material sustainability. Timber is, and has been an excellent fiber source, but bamboo is another source of fiber that cannot be ignored.                                       |
| <b>Energy Consumption</b>  | <b>Energy Consumption</b>   |
| Manufacturing energy can be calculated by harvesting and replanting cost coupled with milling, and the engineered wood manufacturing process.  | Due to the properties of bamboo and its clumped root system, replanting is not required after harvesting. The manufacturing process is indeed more than rough sawn lumber, but similar to other engineered timber products Lamboo yields higher strength per cross section of fiber. Also the Lamboo lamination process uses a very small amount of glue used in comparison to LVL because of the high density of the species that we use, and far fewer glue lines per cubic foot of material. |
| <b>Off-gassing</b>   | <b>Off-gassing</b>  |
| American hardwoods have no emissions for methane, nitrogen oxides, and other particulate matter, and minimal emissions for carbon dioxide.   | All of Lamboo specified adhesives exceed the most stringent of standards worldwide, containing no formaldehyde, leads or harmful organic content.   |
| <b>Material Utilization</b>  | <b>Material Utilization</b>   |
| Virtually every part of a log is used as lumber or by-products, including bark, sawdust, and scrap; and finished products can be repurposed or used as a combustible fuel.   | We have established initiatives and regulations to insure that all of the bamboo unused fiber is used in other applications including strand flooring, fiber board, etc.  |
| <b>Quality</b>   | <b>Quality</b>  |
| Standards, established by U.S. associations, regulate the quality of American hardwood products.   | Our testing has revealed excellent structural integrity for long life. The standards of all of our products are required to meet Lamboo's standards, coupled with LEED, FSC, ASTM, and ICC, making Lamboo a truly US standardized product.  |

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| <p><b>Carbon Sequestration</b></p>   | <p><b>Carbon Sequestration</b></p>  |
| <p>Hardwoods store carbon as they grow and are actually a carbon negative material.</p>  | <p>Bamboo’s growing process sequesters 35% more carbon, and proportionally produces more oxygen in its growing process than trees. Several publicly acquired and valid studies confirm this evaluation.</p>   |
| <p><b>Shipping</b></p>   | <p><b>Shipping</b></p>  |
| <p>American hardwoods can be regionally sourced and regionally shipped.</p>  | <p>Lamboo has established sourcing and purchase agreements with logistically ideal locations depending on their respective markets, by sourcing our approved species selection from Central and South America, India, Africa, China, and Vietnam, attaining quality control and standardization throughout the milling, processing, and shipping. Lamboo has established logistics methods utilizing ocean liners and barges up the Mississippi which serves 36 states.</p> |
| <p><b>Aesthetics</b></p>   | <p><b>Aesthetics</b></p>  |
| <p>American hardwoods come in a variety of species and lumber grades providing color, pattern and character marks to satisfy nearly every design scheme.</p> | <p>It is clear there are different grain types, which have set all materials apart for years. There will always be beautiful cherry, comfortable oak and slick walnut. These grains will be excellent for centuries to come. Lamboo offers a look that is renewable, innovative, contemporary, and sharp. These features are an aesthetic element that architects, engineers and designers want to incorporate into their designs.</p>                                      |
| <p><b>Life Span</b></p>  | <p><b>Life Span</b></p>   |
| <p>A solid timber structural system can last up to 125 years or longer with proper protection and maintenance procedures.</p>                                | <p>The level of quality and longevity of bamboo, that Lamboo has specified for structural and architectural applications can be found in its raw form in buildings over 200 years old remaining completely structurally stable. Lamboo because it is engineered has even more uniformity, usability and strength.</p>   |
| <p><b>After Useful Life</b></p>  | <p><b>After Useful Life</b></p>   |
| <p>Finished products can be repurposed or used as a combustible fuel. Even in a landfill, hardwoods will naturally revert back to nature.</p>                | <p>Lamboo, after its long use in construction can also be shaved into fiber for use in other applications such as particle board, flooring, clothing, bedding, etc.</p>   |

