

## DATA SHEET

# Plantation Vertical Bamboo Panels

Plantation Bamboo panels are a stunning alternative to hardwood products and plywood. The success of the product lies in their fantastic strength, sustainability, great looks and amazing versatility.

Bamboo panels are ideal for any wooden application, from bench tops to cabinets, kitchen joinery to furniture, stunning staircases (including treads, risers, stringers and handrails) to doors, both in the residential or commercial environment.



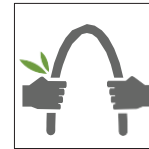
**Sustainably sourced**



**Excellent shrink and swell rate**



**Great warranties**



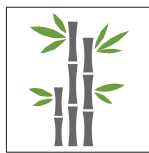
**Strong and durable**



**Dimensionally stable**



**Non-toxic and recyclable**



**Fine-grained, 100% natural bamboo**



**Excellent machinability**



**Perfect for coating**

## Vertical Lamination

The outside surface of the bamboo panel is manufactured using vertical strips of bamboo laminated together, giving a uniform, stripe look. The grain runs along the longest length of the panel.

Vertical panels are cross laminated into either 3 or 5 ply, to ensure long lasting stability and durability.

15, 18, 20, 30mm – cross laminated into 3 ply.

40mm – cross laminated into 5 ply.

## Colour

Panels are available in Natural and Coffee colour.

## Panel Dimensions and Weight

Dimensions	Thickness	Per panel
2440x1220mm	x 15 mm	29.0 kgs
	x 18 mm	34.8 kgs
	x 20 mm	38.7 kgs
	x 30 mm	58.1 kgs
	x 40 mm	77.4 kgs

## Material

100% Phyllostachys Pubescens (common name: Moso Bamboo) harvested at maturity at 5-6 years for maximum fibre density, with Prefere 6121 adhesive. Plantation Vertical Panels fall well below E1 requirements for VOC (Volatile Organic Compounds) levels \*MSDS available.

## Grading

The panels are graded for colour, thickness and sizing, to ensure a consistent, uniform product at all times. Product meets AA standard.

## Equilibrium Moisture Content

9-12% at 70% relative humidity, 20 degrees Celcius.

## Bending Strength

100x30mm Bamboo gross section bending strength and stiffness properties (tested by Scion, 13 May 2014):

	Bending stiffness MoEj (GPa)	Bending strength MoRj (MPa)
Mean	4.18	38.33
Minimum	2.93	26.43
Maximum	5.87	55.32
Range	2.94	28.89
Standard deviation	0.43	5.34
Coefficient of variation	10.31%	13.92%
Count	30	30
Characteristic strength (MPa)		35.97
Characteristic stiffness (GPa)	4.13	



## Fire Rating

Vertical Bamboo Panels meet a Group 3 fire rating under ISO 5660.

## Cutting and Tooling

Bamboo cuts and tools well with standard woodworking tools. Sharp carbide tipped tools is recommended. When cross-cutting, the higher the saw tooth count the better. A very high ATB blade works best. Bamboo machines easily with the grain.

Just as plywood does, bamboo can splinter when cross-cutting across the end grain. Due to the linear fibrous nature of bamboo, do not try to snap off these small pieces - cut them or sand them off. Pulling the bamboo fibers could cause them to 'run' along the length of the grain. Profiles can be easily routed. Bamboo sands well with any standard wood-working sander.

## Fastening

Pilot holes, pre-drilling, oversized slots for screw inserts, panel clips or other methods that allow for expansion and contraction are necessary.

## Finishing

Vertical Bamboo Panels are supplied unfinished.

After fabrication, all exposed surfaces and edges must be covered and finished with at least two coats of polyurethane. Plantation recommends the use of the Mirotone Range of Polyurethanes. Please follow Mirotone manufacturing instructions to ensure best results.

## Warranty

Plantation Vertical Bamboo panels are warranted against delamination, and will not separate as a result of a manufacturing defect for a period of 15 years from the date of sale.

## Contact

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**Please note** that all values are averages unless otherwise stated, and should not be used for calculations in structural applications. For assistance in planning structural projects, please contact Plantation directly.

Please view [www.plantationbamboo.co.nz](http://www.plantationbamboo.co.nz) for further product information.