



Plantation XTR
DECKING

thinking of our **FUTURE**

A close-up photograph of several bamboo stalks and leaves. The stalks are green and segmented, with visible nodes. The leaves are also green and have a smooth, slightly waxy texture. The background is a soft, out-of-focus green, suggesting a natural outdoor setting.

Plantation XTR OVERVIEW

Plantation XTR is a solid, high density bamboo board, made from compressed bamboo strips. It is suitable for outdoor applications such as decking.

A special patented heat treatment process alters the hardness, dimensional stability and durability of the bamboo to a level superior to the best tropical hardwood species.

The symmetrical shape of the outside surface offers the choice between either a wave or a flat surface. It allows for quick installation using clips.

Like any untreated tropical hardwood species when exposed to outdoor conditions, Plantation XTR will turn grey over time, creating a very natural look.

High Performance Decking

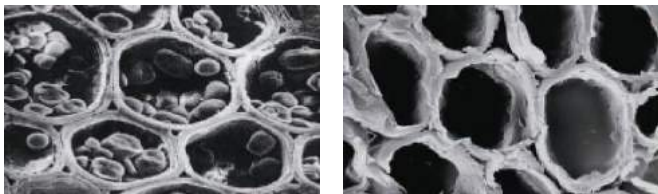
There has been significant research and various testing methods of how to best protect bamboo in outdoor circumstances. Initial tests (which are also often used by other bamboo suppliers) were found to be unsatisfactory, not performing to Plantation’s quality standards. Therefore Plantation looked to a supplier who had developed an alternative way to solve the problem.

By modifying the density of the bamboo and also applying a special heat treatment process, our supplier was able to improve the durability and stability of bamboo. This technique is referred to as “density-thermo treatment”.

This invention was registered internationally in 2008, with laboratory and practical testing performed the following year. The research proved density-thermo treatment to be the most effective method (and currently the only efficient solution) to ensure bamboo is suitable for outdoor applications.

Density-thermo treatment counters previous problems with using bamboo outdoors, such as cracking in dry conditions, and the inner wood material being subject to attack from micro-organisms and fungi, due to the high sugar content of bamboo.

Density-thermo Treatment



Bamboo on molecular level before (left) and after (right) the density-thermo treatment:

- Before: the sugar molecules are still visible,
- After the treatment: they have disappeared.

With this treatment, bamboo is no longer a feeding place for fungi and micro-organisms, resulting in a high performing decking and exterior bamboo product.



product code	long side	head side	finish	top view	dimensions (mm) Wave
BSWO-W	beveled	square edge	oiled	wave	L1850 x W137 x T20mm
BSWO-S	beveled	square edge	oiled	flat	L1850 x W137 x T20mm

Note: Decking planks are T&G end matched.



BSWO-W



BSWO-S



How you Benefit

Plantation is the largest specialist supplier of bamboo products in the New Zealand market. With offices in Auckland, Wellington and Christchurch, we have support for you throughout the process – before, during and after installation of your decking. We have found this to be a huge benefit to customers, allowing us to offer a better service with higher quality control.

In addition, we are able to offer you competitive pricing and the best quality bamboo products on the market.

Quality Management

All products comply with the highest international standards. The production is carried out with the restriction and guarantee of ISO9001 Quality Management System and ISO14001 Environment System.

Each link of the production chain is under the strictest supervision, with quality control checks, so as to ensure high quality end products.

Durability Class

Plantation XTR Decking is classified as EN113 Class 1 (the highest rating) in Use Class 1-4. It is an effective barrier against a broad range of fungi, including cellar, wet rot, dry rot, soft rot, white, brown and spore fungi.

Emissions

All our products comply with the European E1 standard with a VOC emission rate of less than 0.001ppm (parts per million).

Warranty

Plantation offers a 15-year warranty on our Plantation XTR decking.

Visit www.plantationbamboo.co.nz to download full warranty information



Performance Comparison

Swelling Rate of Water Absorption* immersed in water for 24h

No.	Species	Width Swelling Rate of Water Absorption*	Thickness Swelling Rate of Water Absorption*
1	Plantation XTR	0.30%	0.50%
2	Teak	0.40%	6.10%
3	Ipe	0.50%	0.70%
4	Red Cedar	0.60%	1.70%
5	Merbau	0.60%	0.60%
6	Red Meranti	0.60%	0.30%
7	Carbonised Pine	1.00%	0.50%
8	CCA Pine	1.30%	1.80%





“The best bamboo decking in the world”

Elastic Modulus

No.	Species	Elastic modulus (Gpa)
1	Ipe	20.62
2	Merbau	16.23
3	Plantation XTR	13.63
4	Teak	11.20
5	Carbonised Pine	11.18
6	CCA Pine	9.66
7	Red Meranti	7.08
8	Red Cedar	3.76

Hardness/Wear-resistance

No.	Species	Hardness (Gpa)
1	Ipe	119.10
2	Plantation XTR	116.60
3	Merbau	61.90
4	Teak	55.80
5	Red Meranti	47.10
6	Carbonised Pine	44.30
7	Red Cedar	44.10
8	CCA Pine	43.10

Appearance and colour

Plantation XTR is a natural product which can vary in colour, grain and appearance. Colour will change over time, depending on the maintenance schedule. The boards have a brown to dark brown colour when installed, which turns into a lighter caramel colour several weeks after installation. Without further maintenance, the colour becomes grey relatively fast (similar to most other wood species). If a brown colour is preferred, maintenance should be carried out with decking oil recommended by Plantation.

Plantation XTR is similar to other hardwoods in grain and structure. The characteristic bamboo nodes can however, be recognised, giving the product a unique and appealing look.

Use of the flat side

Surface weathering, due to climate conditions, will be more noticeable on the flat side of the decking, compared to the ribbed side.

Natural greying of Plantation XTR over time (without maintenance)

New, non-weathered decking (left); after three months of weathering (middle); and after 18 months of weathering (right).



Surface of Plantation XTR with different maintenance and cleaning scenarios

Weathered, non-maintained decking (left); weathered, cleaned decking (middle); and re-oiled decking (right).



The surface of decking becomes weathered under the influences of wind, rain, frost and ultraviolet light. As a result, the surface will turn grey. It is important to use outdoor decking oil to maintain the appearance and performance of your bamboo.





Plantation XTR Decking Installation Instructions

Before installation

- Clean the job site and ensure the XTR Decking is dry
- Use sub frame joists. Using impregnated pine joists or coated iron joists is recommended. Avoid direct contact with the ground
- It is advisable to install the boards on sub frame joists with a maximum space of 460mm between the joist centres
- Suitable installation tools: screwdriver, band tape, hammer, electric drill and saw

During installation

- Determine the surface of the decking (waved or flat)
- Use the clips supplied in the following sequence:
 1. Pre-drill the screw holes at the side of board. Be sure to pre-drill with large enough hole diameter to avoid cracking. Fix down first plank of one side to the floor joist
 2. Insert the clip to other side of plank then install it to the floor joist
 3. Tighten the screw in the clip and the floor joist
 4. Use a plastic hammer on the side of the following plank to secure the board with a 3mm space
 5. Use approximately 16 clips/m². Use a clip on each floor joist
 6. Only use the included stainless steel decking screws
 7. For end matched joints, two clips must be installed on the joist either side of the join.

Post installation

- Apply one additional coat of exterior oil directly after installation. Please follow manufacturer's instructions.

Ongoing care and maintenance

Plantation XTR Decking is double sided and pre-oiled with exterior waterbased decking oil. It is important to clean the deck at least once per year. Depending on climate and deck use, cleaning may be necessary more than once per year.

Cleaning

- Soak Plantation XTR with plenty of water, if possible with a garden hose
- Mix exterior cleaner with water in the ratio 1:2 and apply it. If the decking is extremely dirty, exterior cleaner may be used undiluted. Clean the decking with a silicon carbide brush or machine disc. Scrub the soaked bamboo lengthwise, following the grain, until the material appears clean. If the decking has a flat surface, first scrub at an angle of 45 degrees or less, before scrubbing in a lengthwise direction
- Remove the dirty water residue on the boards with clean water and let the deck dry for approximately 24 hours. The bamboo must be completely dry before the oil treatment is undertaken.

Oiling

It is important to apply two new layers of decking oil. If you do not reapply oil at least once per year, the deck will become grey and the unique appearance of the bamboo grain will become less visible.

- Apply in dry weather only
- Avoid direct sunlight and high temperatures
- Stir the oil thoroughly before use
- Apply an even, thin coat of oil with a brush
- The oil is cream-coloured when it is wet. After a few minutes, the bamboo will have an oily appearance as the water evaporates
- After 5-10 minutes, wipe off any excess oil with a clean cotton cloth
- Take particular care to remove excess oil from joints and grooves
- Repeat the above process
- When the bamboo is dry, it may be polished with a polishing pad to ensure an extra hard-wearing surface. It takes 24 to 48 hours for the oil to harden completely, depending on weather conditions and outdoor temperature. The bamboo should not be exposed to water during this period.



Maintenance

- Keep the deck free from dust and dirt as much as possible. Clean regularly with a broom
- To ensure your warranty remains valid, decking must be maintained as per Plantation specifications.

Storing Plantation XTR

Store Plantation XTR in a dry, cool place protected against dust and direct sunlight.

Visit www.plantationbamboo.co.nz to download detailed maintenance and cleaning instructions

Plantation XTR Recommended Decking Oil

End seal oil

- Plantation XTR recommends Anchorseal® for sealing the ends of the product after cutting. Like all natural wood products, boards that have been crosscut may develop end splits, if not maintained with oil.

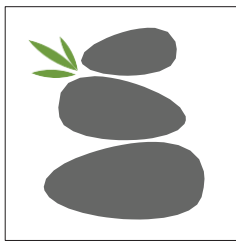
Top coat oil

- Plantation XTR is finished with WOCA oil to provide a high quality exterior wood finish. The WOCA line is known throughout the world for its interior and exterior oil wood finishes. Utilised by our supplier in its factories throughout the Asian, European, and American aftermarkets, WOCA outperforms all other systems.

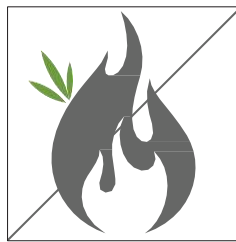
Maintenance oil

- To ensure a factory finish is maintained, Plantation recommends WOCA for all maintenance. WOCA's maintenance system is unlike other products as it uses exterior soap to clean the deck, without going through the complete refinishing process. Also, the WOCA system is an all-in-one system. Where other brands require both a cleaner and brightener, the WOCA system does this with one product, saving time and money.





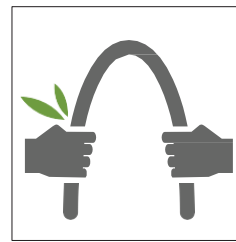
Healthy eco friendly



Fire-proof



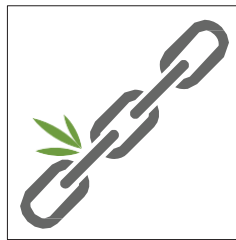
Excellent shrink
and swell rate



Hard & durable



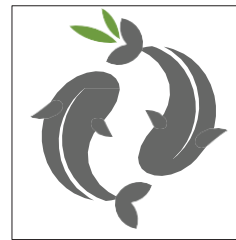
15 year guarantee



Corrosion-resistant



High mould-proof



Good dimension
stability



Summary

Plantation is excited about the opportunity to work with you. Please contact any of our team members to discuss your project and potential options further. **Think bamboo, think Plantation!**

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