

# Rtree

Water Resistant Board (HDMR V313)

**“YOUR WATER RESISTANT DOOR PANEL EXPERT”**



- 💧 Highest water resistant standard V313
- 💧 E1 Formaldehyde Grade
- 💧 HDF Density > 800kg/m<sup>3</sup>
- 💧 SIRIM Tested & Passed

**ARCHIDEX®**  
**STAR**  
**AWARD**  
★  
**WINNER '21**



# Why Choose Rtree Water Resistant Board?

- *Archidex Star Award Winner Products*
- *Highest water resistant standard*
- *Tested and certified by local and international body (SIRIM Approved)*
- *Better product quality than HDF, HMR and Plywood*
- *German technology product*
- *Good fungus and termite resistance*
- *Easy to paint and laminate due to latex free and smooth surface*
- *Reduce wastage with our special board size (7' X 8.5')*
- *Healthy product - E1 Formaldehyde*
- *Eco Friendly, FSC plantation timber*

# Application For Rtree Water Resistant Board

- *Main Door*
- *Room Door*
- *Kitchen Door*
- *Bathroom Door*
- *Laundry Area Door*
- *Any Other Indoor High Moisture Areas Door*

*Thickness : 3.3 mm & 5.0 mm*

*Size : 1830 mm x 2440 mm*

*: 2135 mm x 2600 mm*

**Rtree Water Resistant Board**

# What Is Rtree Water Resistant Board?

**V313  
WATER  
RESISTANT**



**HIGH DENSITY**  
(HDF > 800kg/m<sup>3</sup>)



**We Don't Just Claim, We Prove With Testing,  
Certification And Award**

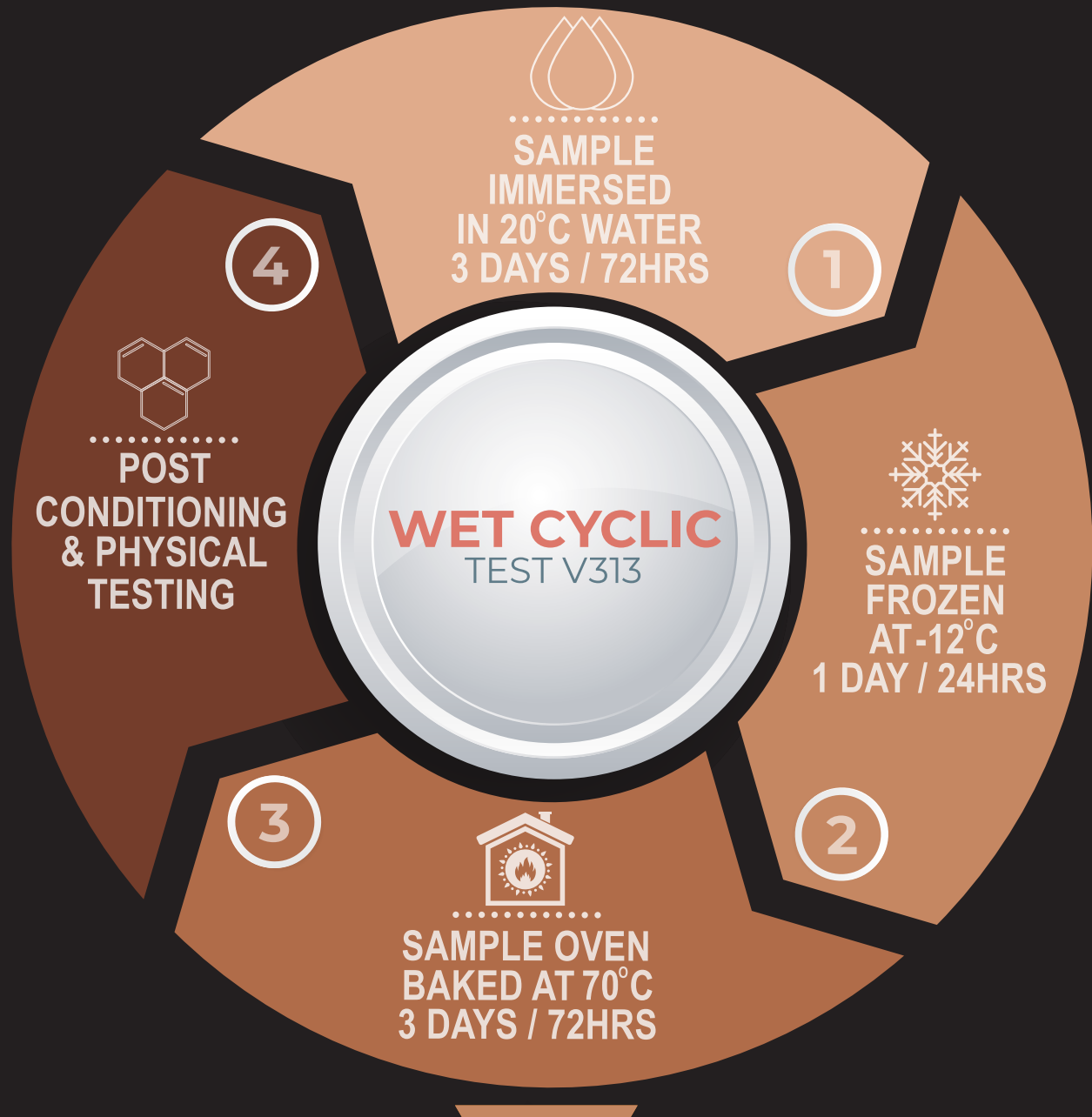




# What Is V313 Water Resistant Standard?

Best Water Resistant Standard

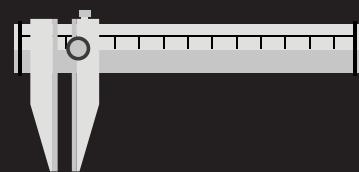
BS EN 321:2002



REPEAT 3X  
TOTAL 21 DAYS



**INTERNAL BONDING**  
 $> 0.35\text{N/mm}^2$



**THICKNESS SWELLING V313**  
 $< 40\%$

# **Rtree Water Resistant Board Complies E1 Formaldehyde Standard**

## **WHAT IS FORMALDEHYDE?**

Formaldehyde is a chemical used in some building materials and household products like flooring, furniture, doors and fabric. It is a colourless, flammable gas at room temperature with strong irritating odour. High levels of exposure may cause cancer.



## **WHY CHOOSE MATERIALS THAT ARE COMPLIANT WITH E1 FORMALDEHYDE EMISSION STANDARD?**

The issue of formaldehyde emission from composite wood products has been a concern since the gas was deemed carcinogenic in 2004. High exposure may trigger attacks in people with asthma. Some people can also develop a sensitivity to formaldehyde. It has also shown to cause cancer.

Rtree has the solution for you. Rtree Water Resistant Board is Grade E1 which complies with healthy and safe formaldehyde emission standard. Giving you 100% peace of mind!





# Rtree Water Resistant Board is made of **EUCALYPTUS WOOD**

Eucalyptus wood have the following properties  
which bring many benefits to your usage

## **HARDWOOD**

- 🌿 Strong lumber with tight straight grain
- 🌿 Less porous structure
- 🌿 Highly dense, with tight pores in its structure
- 🌿 Exceptional durability

## **INHERENTLY HIGH IN PROTECTIVE OIL**

Good repellent to water & moisture 🌿  
Does not rot/ decay easily 🌿

Does not create the conditions supporting the growth of fungus 🌿

## **EXCELLENT RESILIENCE AGAINST DAMAGING PEST SUCH AS TERMITES**

- 🌿 No need to use hazardous chemical to avoid termite attack.

## **SUSTAINABLE & ECO-FRIENDLY DUE TO SOURCE FROM PLANTATION**



It is impossible to have termite proof for any timber related materials. When considering termite resistant, there are certain timber material which are more termite resistant than others. Rtree Water Resistant Board uses eucalyptus wood as a better choice of resistant. Not only on termites but moisture and mould repellent too.



# Rtree



★ State-Of-The-Art Manufacturing Plants ★

★ German Technology ★

★ Annual Capacity > 600,000 CBM ★

★ 100% Renewable Agro-Forestry Eucalyptus Wood ★



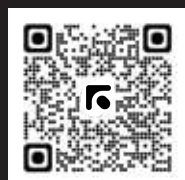
## Rtree WATER RESISTANT BOARD vs NORMAL MOISTURE RESISTANT BOARD vs NORMAL PLYWOOD

TEST METHODS	TEST STANDARDS	Rtree WATER RESISTANT BOARD	NORMAL MOISTURE RESISTANCE BOARD	NORMAL PLYWOOD
24 hours swelling test	<b>BS: EN 317-1:1993</b> Thickness Swelling : <30%	Passed	Passed	Depends on quality
V313 HDMR Test	<b>BS: EN321:1993</b> Thickness Swelling : <30%	Passed	Very likely not	Very likely not
	Internal Bonding : >0.35 N/mm <sup>2</sup>	Passed	Very likely not	Very likely not
	<b>SIRIM Moisture Resistant Standard</b> Internal Bonding : >0.18 Mpa	Passed	Very likely not	Very likely not

## SPECIFICATION

Sl. No.	PROPERTIES	TEST METHOD	UNIT	BOARD THICKNESS	
1.0	Thickness	EN 324-1	mm	3.30	5.00
2.0	Thickness tolerance	EN 324-1		± 0.2 mm	
3.0	Length and width tolerance	EN 324-1		± 2 mm/m	
4.0	Squareness	EN 324-2		2 mm/m or 0.2%	
5.0	Edge straightness	EN 324-2		1.5 mm/m or 0.15%	
6.0	Density	EN 323	Kg/m <sup>3</sup>	800-850	800-850
7.0	Moisture content	EN 322	%	4-8	4-8
8.0	Thickness swelling 24hr	EN 317	%	30.0	18.0
9.0	Thickness Swelling V313 cyclic test	EN 321	%	40.0	25.0
10.0	Modulus of Rupture	EN 310	N/mm <sup>2</sup>	27.0	27.0
11.0	Modulus of Elasticity	EN 310	N/mm <sup>2</sup>	2700	2700
12.0	Internal Bond dry	EN 319	N/mm <sup>2</sup>	0.70	0.70
13.0	Internal Bond after AWR	EN 1087-1 & 319	N/mm <sup>2</sup>	0.20	0.20
14.0	Internal Bond after cyclic test	EN 321 & 319	N/mm <sup>2</sup>	0.35	0.35

## SCAN ME



for more information about our offerings  
and latest updates from our website.

## URL

[rtree.com.my](http://rtree.com.my)

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