



Onewood Sawn Timber

Substrates Collection

Onewood is a reconstituted timber that is homogenous in nature. Its properties such as a unique grain pattern for material reusability and Class 1 fire resistance, run through each block.

Other features of Onewood include mitigating the problem of termite infestation and water-resistance, making it a dimensionally stable product suitable for external use.

Thickness
Dimensions

up to 300 × 5000 mm
up to 300 mm

Characteristics



H4 Weatherproof

Suitable for exterior conditions, where applications are prone to prolonged weather exposure.



Sustainable

Made from natural fibers from fast-growing plantation trees.



Structurally Strong

Onewood has similar properties and an equivalent density to tropical hardwood.



Termite Resistant

Less susceptible to termite infestation as compared to natural timber.



Class 1 Fire Retardant

Impregnated with fire retardant chemicals which attributes to its low flame spread property, meeting Class 1 Surface Spread of Flame standard.

PANELOGUE

Technical Datasheet

Finishes



Clear



Natural



Frost



Red Cedar



Golden Teak



Matured Teak



Dark Walnut



Ebony

Technical Specifications

Properties	Standard	Unit	Result
Density	ASTM D1037	kg/m ³	900 - 1000
Maximum Crushing Strength		MPa	7.10
Shear Strength		MPa	6.7
Work to Maximum Load		N mm/mm ³	0.05
Janka Hardness		N	7,042
Bending Strength (MOR)		kPa	94,557
Strength Retention after Aging		%	101.5
Modulus of Elasticity (MOE)		kPa	13,719,167
Screw Withdrawal: • Face • Edge Perpendicular to Long Side • Edge Parallel to Long Side		N	2,875 2,991 2,284
Dimensional Stability 50% - 90% R.H.: • Length Expansion • Width Expansion • Thickness Swell		%	0.07 0.204 0.373

Properties	Standard	Unit	Result
Moisture Content	DIN EN 408 DIN EN 13183-1	%	9.50
Bending Strength - Flatwise		N/mm ²	90.6
Bending Strength - Edgewise			98.1
Bending E-module - Flatwise		19,700	
Bending E-module - Edgewise		18,700	
Compressive Strength		82.0	
Compressive E-module		14,700	
Tensile Strength		83.2	
Tensile E-module		15,800	
Shear Strength		7.9	
Shear E-module		510	

Properties	Standard	Unit	Result
Total Volatile Organic Compound (TVOC Emission)	ASTM D5116-10	mg per m ² per hr	0.3
Formaldehyde Emission Rate			< 0.1
Toluene Emission Rate			0.058
4-Phenylcyclohexene Emission Rate			< 0.002
Total Phthalates Emission Test		mg/m ³	< 0.005
Surface Flame Spread Test	BS 476: Part 7: 1997	Class	1
Durability of Restructured / Reconstituted Timber Against Subterranean Termites	ASTM D3345 and AWPA E1-09	Avg Visual Rating	8.5 (Moderate - Slight Attack)

Onewood Application Areas

Furniture and Woodworking	
Lamination of Surface Elements (Melamine, Laminates and Foils)	
Spray Painting	•
Easy processing with woodworking tools	•
Excellent grip of fasteners (Screws, nails and staples)	•
Decorative Surface	•
Attractive Edges	•
Homogeneous Appearance Throughout	•

Building and Structural Applications	
High Moisture and Humidity Resistance	H4
Increased Fire Safety Regulations	Class 0* Class 1
Termite Resistance	High resin content naturally increases termite resistance
Climate Sensitive Applications (Ultra Low VOC)	
Horizontal Load-bearing Applications	•
Non Load-bearing Walls, Partitions and Ceilings	•
Formwork	

Other Technical and Industrial Applications	
Door production with increased fire safety regulations	
Suitable for use in marine vessels	•
Temporary Outdoor Exhibitions	•
Packaging Industry	
Signage and Billboards	•
Warehouse Management (Racking)	

• Recommended * Option Available