

HARMODECK

WPC - WOOD PLASTIC COMPOSITE

PRODUCT SPECIFICATIONS

Scallop Board Size	140 mm (W) x 2200 mm (L) x 20 mm (T)
Mass per Meter	2.86 kg/m
Coverage	7.14 m/m ²
Recommended Joist Spans	300 mm
Appearance	Various colours and wood grains available

MECHANICAL PROPERTIES

Three-point Bending Test	Width: 140 mm Thickness: 20 mm Area: 3105 mm ² Span: 400 mm	Maximum Load: 1.894 kN Flexural Strength: 30.80 MPa Modulus of Elasticity: 3102.220 MPa	EN 15534-1: 2014
Four-point Bending Test	Width: 140 mm Thickness: 20 mm Area: 3105 mm ² Span: 400 mm	Maximum Load: 2.799 kN Flexural Strength: 45.53 MPa Modulus of Elasticity: 4618.210 MPa	EN 15534-1: 2014

TECHNICAL OVERVIEW

Characteristic	Technology Target	Result	Remark
Value of Residual Indentation (mm)	Falling ball test	0.08 mm	EN 15534-1: 2014
Maximum Crack Length (mm)	Falling ball test	No crack	EN 15534-1: 2015
Anti-Abrasion (grams/rotation)	/	0.053g/100r	GB/T 24137-2013
Slip Resistance	Low moderate chance Pendulum Test with Grain	R10 PTV, SRV: 39	EN 15534-1 EN 15534-4
Cap Delamination (N/mm)	Average peel off - 5.32 mm (Max allowable = 10 mm)	60N/50mm	ISO 24345: 2006



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TECHNICAL OVERVIEW

Characteristic	Technology Target	Result	Remark
Scratch Resistance	/	5 N	FORD FLTM BO 162-01
Colour Fade	4000 hours testing	ΔE 2.48	ASTM G155-13 Cycle 1
Linear Thermal Expansion Coefficient	Temperature range of -20°C to 60°C	$39.3 \cdot 10^{-6} \text{ K}^{-1}$	ASTM D6341
Bulk Density (kg/m ³)	/	1284	/
Creep Recovery	/	89%	/
Flame Spread Index	Requirement pass rate $\leq$ 200	110	ASTM E84
Water Absorption After 24 Hours (%)	Change in mass	0.2	EN 15534-1: 2014
Swelling After 24 Hours (%)	/	Thickness: 0.1 Width: 0.0 Length: 0.0	
Water Absorption After 28 Days (%)	Change in mass	0.8	
Swelling After 28 Hours (%)	/	Thickness: 0.2 Width: 0.0 Length: 0.1	
Termite Resistance Mass Loss (%)	/	Pass 0.02	ASTM D2017
Fungal Decay Resistance Mass Loss (%)	G.trabeum P.placenta T.versicolor I.lacteus	Pass 0.77 Pass 0.91 Pass 0.90 Pass 0.91	

WEATHERING EFFECTS & REDUCTION FACTORS

Exposure Condition	Difference (Strength)	Difference (Stiffness)	Reduction Factor (Strength)	Reduction Factor (Stiffness)	Remark
High Temperatures	96.80%	90.30%	0.97	0.9	ASTM D7032
Low Temperatures	145.60%	137.50%	1	1	
Moisture	108.30%	108.50%	1	1	
UV Resistance	92.70%	94.40%	1	1	
Freeze-thaw	104.80%	100.70%	1	1	