

Fiberon Composite Decking Test Information

Property	Code/Method	Notes	Fiberon Deck Boards	European Tests	
				Code/Method	Fiberon Deck Boards
Weight	n/a	FC lab standard testing	3.6 kg/m		
Specific Gravity	ASTM D2395		1.11		
Tensile Strength	ASTM D198		60.7 Kp		
Shear Strength	ASTM D143		44.6 Kp		
MOE	ASTM D6109	FC lab standard testing	3289 Mpa	EN 310 (1993)	3149 Mpa
	MOE @ 52 C ASTM D6109		2268 Mpa	EN 310 (1993) @ +60 C	1908 Mpa
	MOE @ -29 C ASTM D6109		4699 Mpa	EN 310 (1993) @ -18 C	4707 Mpa
MOR	ASTM D6109	FC lab standard testing	23.8 Mp	Water Soak 20C/EN 321	2367 Mpa
	MOR @ 52 C ASTM D6109		17.3 Mp	EN 310 (1993)	18.6 Mpa
	MOR @ -29 C ASTM D6109		32.7 Mp	EN 310 (1993) @ +60 C	12.5 Mpa
				EN 310 (1993) @ -18 C	26.6 Mpa
Uplift Resistance	ASTM DE330	AC174	4.8 kp (30 cm span)	Water Soak 20C/EN 321	18.1 Mpa
Slip Resistance (COF) (-18 C)	ASTM D2394		0.63 dry/0.95 wet	DIN 51097	27 degree incline/RT/wih grain
Slip Resistance (COF) (32 C)	ASTM D2394		0.80 dry/1.19 wet	DIN 51097	30 degree incline/RT/ against
Impact Resistance	ASTM D4495	ASTM D256	Gray - RT: 362 ft-lb/in	EN 15676	Longitudinal: 78.1 vert/47.3 sec
	Impact Resistance	ASTM D256	Gray - 30F: 0.424 ft-lb/in	EN 15676	Transverse: 82.5 vert/63.7 sec
	Impact Resistance	ASTM D256	Cedar - RT: 0508 ft-lb/in		
Heat Resistance	AAMA 306-01		n/a		
Stair Tread Load	AC174	136 kg loading over 2 span min	Max design load deflection = 2.3 mm - meets recovery requirements of at least 75%		
Creep Relaxation	AC174	9.6 kP uniform loading	meets recovery requirements		
Freeze - Thaw	AC174		n/a		
Fungus Decay Resistance	AC174		meets code requirements		
Temperature Effect	AC174		meets code requirements		
Moisture Effect	AC174		meets code requirements	EN 1087-1 Modified	Weight 4.0%
				(Boiling water)	Thickness 3.3%
					Width 0.2%
					Length 1.02%
				EN 1087-1 Modified	Weight 5.8%
				20C Water Temp	Thickness 2.1%
					Width 0.3%
					Length 0.1%
Abrasion Resistance	ASTM D4060		in test		
Coefficient of Linear Thermal Expansion	ASTM D696		Gray: Ave: 1.58x10 ⁻⁵ (1/degF)		
	ASTM D696		Cedar: Ave: 1.51x10 ⁻⁵ (1/degF)		
Flame Spread Index (FSI)	ASTM E84		Class B - 75		
Smoke Density Index (SDI)	ASTM E84		meets or exceeds requirement		
SFM Part A Underdeck Flame	SFM 12-7A-4		Passes		
SFM Part B Burning Brand	SFM 12-7A-4				
Self Ignition Temperature	ASTM D1929-96	wood ranges from 300 C to 400 C	438 C		
Flash Ignition Temperature	ASTM D1929-96	wood ranges from 270C to 470 C	400 C		
Predicted Heat Build-up	WI-0360		n/a		
Adherence of Cap Stock	researching		n/a		
Staining Resistance	ASTM D3023	Martin Laboratories	n/a		
Scratch Resistance	ASTM 7027-05	Martin Laboratories	n/a		

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QUV Testing: Color Retention of Cap Stock (delta E)	ASTM G154	FC lab: 3000 hour completed; ASTM G154 started at Martin	n/a		
Static Electrical charge	researching		n/a		
Water Absorption	ASTM D1037	FC lab standard testing	0.8% - maximum weight gain		
Screw & Nailability	ASTM 1761	Mechanical Fastening	Nail: 6d Bright Common: 57 kg		
Screw & Nailability	ASTM 1761	Mechanical Fastening	Nail: 6d Ring Shank: 234 kg		
Screw & Nailability	ASTM 1761	Mechanical Fastening	Nail: 8d Spiral Shank: 175 kg		
Screw & Nailability	ASTM 1761	Mechanical Fastening	Nail: 8d Common: 123 kg		
Screw & Nailability	ASTM 1761	Mechanical Fastening	Screw: #6: 547 kg		
Hardness Test - RT	ASTM D143	Impact?	Average Value 988 kg	EN 1534 Modified	1 mm/1764 N
					1.5 mm/4803 N
Uniform Live Load Rating (16" span)	AC174	4.8 kp live load	4.8 kp (30 cm span)		
Uniform Live Load - Stairs	AC174	136 kg loading over 2 span min	136 kg/max 30 kg span		