



STRUXURE® COMPOSITE BOARD

PHYSICAL and MECHANICAL PROPERTIES

Test / Standard	Property	Value		
Flexural ASTM D6109	Modulus of Elasticity (flexural)	220,000 psi (1,517 MPa)		
	Modulus of Rupture	3,000 psi (20.7 MPa)		
Compression ASTM D6108	Compressive Strength (parallel to grain)	3,000 psi (20.7 MPa)		
	Compressive Strength (perpendicular to grain)	1,200 psi (8.3 MPa)		
Tensile Strength ASTM D638	Skin	3,600 psi (24.9 MPa)		
Allowable Shear Strength	Calculated	350 psi (2.41 MPa)		
Allowable Bending Stress*	Calculated	1,200 psi (8.3 MPa)		
Notched Impact Resistance ASTM D256	Method A	1.36 ft-lb/in (4.68 Joules/cm)		
Density ASTM D6111		53 – 56 lb/ft ³ (849-897 kg/m ³)		
Average Screw Pullout ASTM D6117	1-inch (25mm) No. 10-gage flathead low-carbon-steel wood screw	1,021 lbf (463 kgf)		
Flash Point		625 °F (329 °C)		
Flamespread Factor ASTM E162		6.34		
Flamespread Index ASTM E162		147.4		
Optical Density of Smoke ASTM E662		Dm (corr) - 16.9 non-flaming; 266.3 flaming		
Water Absorption ASTM D570		0.04% increase in weight		
Specific Gravity ASTM D6111		0.85 – 0.90		
Linear Thermal Expansion (6x9 profile) ASTM D6341	Increase in Length at 140° F (60° C)	Decrease in Length at -30° F (-34.4° C)	Increase in Length at 73° F (23° C)	Linear Coefficient of Thermal Expansion
	0.056 in (1.422 mm)	-0.022 (in) (-0.559 mm)	0.026 in (0.660 mm)	3.78x10 ⁻⁵ (in/in/°F) 6.81x10 ⁻⁵ (cm/cm/°C)
Static Coefficient of Friction – Dry ASTM F609		0.60		
Static Coefficient of Friction – Wet ASTM F609		0.62		
Ultraviolet Exposure (500 hours) ASTM G154		5.6% change in Type D Shore Hardness		

* Bending Stress - for bridges, creep safety factor based on calculations from Parsons Brinkerhoff: 600 psi (permanent loads); 900 psi (transient loads)

NOTE: The information provided herein contains typical or average values, not minimum values.

Safety factors must be added into the design. See the design guide for specifics.

Safety Data Sheets available upon request.

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Size Chart

Profile Name	Design Dimensions (in)	Height Tolerance (in)	Width Tolerance (in)	Cup/Bulge Tolerance max along width (in)	Length Tolerance As-Molded (in)	Length Tolerance Precision Cut (in)	Longest Lengths Available (ft)	Weight (lbs/lin ft)	Detail
2 x 8	2-3/16 x 8	± 1/16	± 3/32	1/16	+2.5 / -0	± 3/8	9-1/2	6.0	
2 x 8	2 x 8	± 1/16	± 3/32	1/16	+2.5 / -0	± 3/8	16	6.0	Industrial Finish
2-1/4 x 8	2-1/4 x 8	± 1/16	± 3/32	1/16	+2.5 / -0	± 3/8	16	6.7	Round Corner
3 x 10	2-15/16 x 10	± 1/16	± 3/16	1/16	+2.5 / -0	± 3/8	16-1/2	10.5	
3 x 12	2-15/16 x 11-7/8	± 1/16	± 3/16	1/16	+2.5 / -0	± 3/8	16-1/2	12.5	
4 x 4	3-15/16 x 3-15/16	± 1/16	± 1/16	1/16	+2.5 / -0	± 3/8	16-1/2	6.0	
5 x 7	4-7/8 x 6-3/4	± 3/32	± 3/32	3/32	+2.5 / -0	± 3/8	10	12.9	
5 x 8	5-1/16 x 8	± 3/32	± 3/32	3/32	+2.5 / -0	± 3/8	9	14.7	
5 x 9	5 x 9	± 3/32	± 1/8	3/32	+2.5 / -0	± 3/8	9-1/2	16.6	
5 x 10	5 x 9-7/8	± 3/32	± 3/16	3/32	+2.5 / -0	± 3/8	15	18.4	
5-1/4 x 5-1/4	5-3/16 x 5-3/16	± 3/32	± 3/32	3/32	+2.5 / -0	± 3/8	10	10.3	
5-1/2 x 9	5-9/16 x 9	± 3/32	± 1/8	3/32	+2.5 / -0	± 3/8	16	18.2	
6 x 8	6-1/16 x 8	± 1/8	± 1/8	1/8	+2.5 / -0	± 3/8	9-1/2	17.8	
6 x 9	6-1/8 x 9	± 1/8	± 1/8	1/8	+2.5 / -0	± 3/8	20	20.5	
6 x 10	6-1/16 x 9-7/8	± 1/8	± 3/16	1/8	+2.5 / -0	± 3/8	22	22.1	
6 x 12	6-1/16 x 11-13/16	± 1/8	± 3/16	1/8	+2.5 / -0	± 3/8	23	26.5	
6 x 24	6-1/16 x 23-13/16	± 1/8	± 5/32	1/8	+2.5 / -0	± 3/8	20	56.0	Tongue & Groove
7 x 9	7-1/8 x 9	± 1/8	± 1/8	1/8	+2.5 / -0	± 3/8	25-1/2	23.6	
8 x 10	7-7/8 x 9-7/8	± 3/16	± 3/16	1/8	+2.5 / -0	± 3/8	32	29.4	
10 x 10	9-7/8 x 9-7/8	± 3/16	± 3/16	1/8	+2.5 / -0	± 3/8	15	36.1	
10 x 12	9-7/8 x 11-3/4	± 3/16	± 3/16	1/8	+2.5 / -0	± 3/8	32	43.3	

DIMENSIONAL TOLERANCES:

HEIGHT / WIDTH TOLERANCES — average of measurements taken at centerline of board, 12" from each end and center

LENGTH TOLERANCE — measured along top, centerline of board (excluding flash); at time/temp of precision cut when applicable

CUP/BULGE (CONCAVE/CONVEXITY) TOLERANCES — measured as average deviation from a straight line across the surface, from edge to edge of piece, measured at 12" from each end and center.

All dimensions measured at 72 °F