



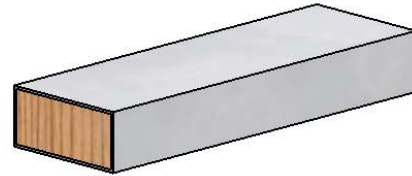
TimberGuard® Dimensional Timber

TG 2x4 Wale Specification

Crane Materials International

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TG 2 x 4 Wale



Drawn: JAB Date: 08/17/09

Moment of Inertia (I) (weak axis)	1.0 in ⁴	42 cm ⁴
Core Material	No. 2 Southern Pine	
Surface Material	UV Resistant Polymer	
Recommended Accessories	90° Corner Brace, AW Rod Kits, TG End Cap, TG Wrap, TG Sealant	
Available Lengths	16 ft, 20 ft	
Standard Colors	Clay, Grey, Brown	

Polymer Properties

Resin Properties	ASTM Test Method	Typical Values
Density (lbs/ft ³)	D-4883	59.3
Tensile Strength at Yield (psi)	D-638	3,900
Tensile Strength at Break (psi)	D-638	2,200
Elongation at Yield (%)	D-638	9
Elongation at Break (%)	D-638	600
Tensile Modulus (psi)	D-638	600
Flexural Modulus (psi)	D-790	260,000
Tensile Impact (ft-lbs/in ²)	D-1822	175,000
Coefficient of Linear Thermal Expansion (in/in/°F)	D-4696	7x10 ⁻⁵

SPIB Design Values for No. 2 Mixed Southern Pine

Extreme Fiber in Bending (psi)	Tension Parallel to Grain (psi)	Horizontal Shear (psi)	Compression Perpendicular to Grain (psi)	Compression Parallel to Grain (psi)	Modulus of Elasticity (psi)
1300	775	175	565	1650	1,400,000

Uniform Load Table

Span (L) (ft)	Max Allowable Uniform Load (Bending Moment) (lbs/ft)	Deflection Allowable Uniform Load (lbs/ft)			
		L/90	L/180	L/240	L/360
4	90	-----	65	49	32
5	58	-----	33	25	17
6	40	38	19	14	10
7	29	24	12	9	6
8	23	16	8	6	4
9	18	11	6	4	3
10	14	8	4	3	2
11	12	6	3	2	2
12	10	5	2	2	1
13	9	4	2	1	1
14	7	3	2	1	1
15	6	2	1	1	1

Physical properties are defined by ASTM testing standards, The Aluminum Association Design Manual, and/or standard engineering practice. The values shown are nominal and may vary. The information found in this document is believed to be true and accurate. No warranties of any kind are made as to the suitability of any CMI product for particular applications or the results obtained there from. ShoreGuard, C-Loc, TimberGuard, GeoGuard, Dura Dock, Shore-All, and Gator Gates are registered trademarks of Crane Materials International. ArmorWare, Ultra Composite, GatorDocks, GatorBridge and CMI Waterfront Solutions are trademarks of Crane Materials International. United States and International Patent numbers 5,145,287; 6,000,883; 6,033,155; 6,053,666; D420,154; 6,575,667; 7,059,807; 7,056,066; 7,025,539; 7,393,482; Other patents pending. © 2009 Crane Materials International. All Rights Reserved.