

PS 2-18 TOLKO T-STRAND OSB PRODUCTS

PS2-18 - Details	Sheathing Specifications
Applications	Wall, Roof, or Floor
Product Standards	US DOC PS 2
Grades	Rated Sheathing (RS) and Rated Sturd-I-Floor (RSIF)
Treatments	UT (Untreated) or H2S (Treated)
Product Certification	APA – The Engineered Wood Association
Chain of Custody	SFI and PEFC certified

FLOORING - Available Sizes

Thickness (mm)	Length x Width (mm)	Edge	Surface	Edge Treatment	Covered Area (m²)
15.1	2,440 × 1,220	T&G 2 Sides	Unsanded	Wax Edge Seal	2.98
	3,048 × 1,220				3.72
	4,267 × 1,220				5.21
18.3	2,440 × 1,220	T&G 2 Sides	Unsanded	Wax Edge Seal	2.98
	3,048 × 1,220				3.72
	4,267 × 1,220				5.21
22.3	2,440 × 1,220	T&G 2 Sides	Unsanded	Wax Edge Seal	2.98
	3,048 × 1,220				3.72
	4,267 × 1,220				5.21
28.5	2,440 × 1,220	T&G 2 Sides	Unsanded	Wax Edge Seal	2.98
	3,048 × 1,220				3.72
	4,267 × 1,220				5.21

Panel Properties^(a)

Tolko OSB meets the mechanical/physical properties provided in Tables 1 and 2 when tested to the standard specified.

OSB/3 TOLKO T-STRAND OSB PRODUCTS

OSB/3 Details	Sheathing Specifications
Applications	Wall, Roof, or Floor
Product Standards	EN 300
Grades	OSB/3 (Load bearing in dry or humid conditions)
Treatments	UT (Untreated) or H2S (Treated)
Chain of Custody	SFI and PEFC certified

Panel Properties^(a)

Tolko OSB meets the mechanical/physical properties provided in Table 3 when tested to the standard specified.



Table 1. Tolko Rated Sturd-I-Floor OSB mechanical/physical properties^(a)

Properties		Standard		OSB Thickness Category, inches (mm)			
				19/32 (15)	23/32 (18)	7/8 (22)	1-1/8 (28)
Major Axis							
Bending Strength	MPa	PS 2 ^(b)		18.7	16.3	19.1	15.3
Bending Stiffness	MPa	PS 2 ^(b)		3900	3200	4600	4500
Minor Axis							
Bending Strength	MPa	PS 2 ^(b)		6.4	5.7	7.2	6.0
Bending Stiffness	MPa	PS 2 ^(b)		900	1100	1400	1100
24 Hr Thickness Swell	%	Manufacturer		10			
Dimensional Tolerance							
Length	mm	PS 2		±1.6			
Width	mm	PS 2		±1.6			
Thickness	mm	Manufacturer		±0.4			
Straightness	mm	PS 2		1.6			
Squareness	mm/m	PS 2		1.3			
Thermal Conductivity	W/mK	ASTM C518		0.102			
Formaldehyde Emission ^(c)	mg/L	ASTM E1333		<0.03			
Dimension Change at Change in MC% ^(d)							
Major Axis	%/%	PS 2		0.01			
Minor Axis	%/%	PS 2		0.02			

- (a) The tabulated values are test values
- (b) Small specimen bending
- (c) In accordance with Table 3 of APA J330E
- (d) In accordance with APA TT-028

Table 2. Tolko Rated Sheathing OSB mechanical/physical properties^(a)

Properties		Standard		OSB Thickness Category, inches (mm)				
				3/8 (9.5)	7/16 (11)	15/32 (12)	19/32 (15)	23/32 (18)
Major Axis								
Bending Strength	MPa	PS 2 ^(b)	21.6	18.7	19.6	21.2	16.5	
Bending Stiffness	MPa	PS 2 ^(b)	4100	3500	3500	4300	3500	
Minor Axis								
Bending Strength	MPa	PS 2 ^(b)	8.6	10.4	13.5	13.3	11.7	
Bending Stiffness	MPa	PS 2 ^(b)	1200	1200	1700	1600	1500	
Dimensional Tolerance								
Length	mm	PS 2	±1.6					
Width	mm	PS 2	±1.6					
Thickness	mm	PS 2	±0.8					
Straightness	mm	PS 2	1.6					
Squareness	mm/m	PS 2	1.3					
Thermal Conductivity	W/mK	ASTM C518	0.102					
Formaldehyde Emission ^(c)	mg/L	ASTM E1333	<0.03					
Dimension Change at Change in MC% ^(d)								
Major Axis	%/%	PS 2	0.01					
Minor Axis	%/%	PS 2	0.02					

- (a) The tabulated values are test values
- (b) Small specimen bending
- (c) In accordance with Table 3 of APA J330E
- (d) In accordance with APA TT-028

PS-2 and OSB / 3 - Available Sizes*

Length × width (mm)	Board thickness (mm)									
Straight Edge Unfinished	6.4	9.5	11.1	12.5	15.1	18.3	22.3	25.4	28.5	
PS 2 or OSB3										
2,440 × 1,220	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2,743 × 1,220		✓	✓	✓	✓	✓	✓	✓	✓	✓
3,048 × 1,220		✓	✓	✓	✓	✓	✓	✓	✓	✓
4,267 × 1,220			✓	✓	✓	✓	✓	✓	✓	✓
4,876 × 1,220			✓	✓	✓	✓	✓	✓	✓	✓
7,315 × 1,220			✓	✓	✓	✓	✓	✓	✓	✓
SIP Facers										
4,267 × 1,220			✓		✓	✓				
4,876 × 1,220			✓		✓	✓				
7,315 × 1,220			✓		✓	✓				
4,267 × 2,440			✓		✓	✓				
4,876 × 2,440			✓		✓	✓				
7,315 × 2,440			✓		✓	✓				

*Contact your Tolko representative for other sizes. 1,200 mm width is available with minimum order quantity.

Table 3. Tolko OSB meets the mechanical/physical properties^(a)

Properties		Standard	OSB Thickness Category (mm)			
			6 to 10	> 10 to <18	18 to 25	> 25 to 32
Major Axis						
Bending Strength	MPa	EN 310 ^(b)	22	20	18	16
Bending Stiffness	MPa	EN 310 ^(b)	3500	3500	3500	3500
Minor Axis						
Bending Strength	MPa	EN 310 ^(b)	11	10	9	8
Bending Stiffness	MPa	EN 310 ^(b)	1400	1400	1400	1400
Internal Bond	MPa	EN 319	0.34	0.32	0.3	0.29
24 Hr Thickness Swell	%	EN 317	15			
Dimensional Tolerance						
Length	mm	Manufacturer	±1.6			
Width	mm	Manufacturer	±1.6			
Thickness	mm	EN 300	±0.8			
Straightness	mm	EN 300	1.5			
Squareness	mm/m	Manufacturer	1.3			

- (a) The tabulated values are test values
- (b) Small specimen bending

Table 4. Shear wall strength^(a,b) using Tolko OSB sheathing

Sheathing thickness (mm)	Min. nail penetration into lumber framing (mm)	Nail dia. (mm) x length (mm)	Shear strength (kN/m) with nail spacing at panel edge ^(c) (mm)		
			152	102	76
9.5	35	3.3 x 63.5	9.0	13.1	16.8
11			9.8	14.3	18.4
12			10.6	15.5	20.0

- (a) The tabulated values are test values with the specific gravity (oven-dry weight and volume) of the lumber framing of 0.50. The lumber framing shall be spaced 610 mm or less. For lumber framing with a specific gravity less than 0.50, the tabulated values shall be adjusted by the Specific Gravity Adjustment Factor = $[1 - (0.5 - SG)] \leq 1.0$, where SG = specific gravity of the lumber framing.
- (b) The tabulated values are based on the full-scale monotonic shear wall tests (i.e., ASTM E72 or ISO 21581 Section 6.1). When tested based on the full-scale cyclic shear wall tests (i.e., ASTM E2126 Method C or ISO 21581 Section 6.2), the value should be multiplied by 0.89.
- (c) The nail spacing at intermediate lumber framing shall be 305 mm or less.

Fastener Properties

For lateral load resistance of small-diameter (6.3 mm or less) dowel-type fasteners (nails, screws, and bolts) used in light-frame wood construction, Tolko OSB can be designed with dowel bearing strength equivalent to sawn lumber with a specific gravity (oven-dry weight and volume) of 0.50.

For withdrawal load resistance of nails and screws, Tolko OSB can be designed with a withdrawal resistance equivalent to sawn lumber with a specific gravity (oven-dry weight and volume) of 0.40 for smooth-shank carbon steel nails and 0.45 for wood screws. Detailed design information is available in the APA Panel Design Specification¹.

OSB Bracing

Tolko OSB sheathing has been used for wall bracing in North America, Japan, and other countries for several decades. Design values for bracing walls using Tolko OSB can be found in the American Wood Council (AWC) Special Design Provisions for Wind and Seismic (SDPWS)² and the Canadian Standards Association (CSA) O86, Engineering Design in Wood³. Typical shear wall strength using Tolko OSB sheathing is provided in Table 4.

1 <https://www.apawood.org>
2 <https://awc.org/publications/2021-sdpws/>
3 https://www.csagroup.org/store/product/CSA_O86:24

ZINC BORATE TREATMENT



Tolko's zinc borate treated OSB panels provide protection against termites, fungal decay, and moisture. The treatment is integrated with the strands before the panel is pressed, ensuring lasting performance throughout the panel in demanding conditions.

These panels are a dependable choice for builders and retailers and can often replace pressure-treated plywood, delivering cost savings without compromising quality.

T-STRAND OSB with ZB conforms with AWPA Use Category 1 (UC1) and Category 2 (UC2). APA Product Report PR-N216 confirms that ZB treated T-STRAND OSB meets the performance requirements of PS 2.

Certified to Australian Standard AS/NZS 1604.1 by the Timber Preservers' Association of Australia (TPAA) for zinc borate treatment. TPAA Brand Listed (No. 245 08 H2S P).



TOLKO MARKETING AND SALES

Producer, Marketer & Distributor

Tolko is a family-owned Canadian company with 70 years of experience and a solid reputation for reliability. We are differentiated by our exceptional service, dedicated people, and commitment to our customers. As a strong wood products company, we manufacture lumber, plywood, veneer, OSB, EWP, biomass power, co-products, and a growing range of specialty wood products for global markets - always with the customer at the center of everything we do.

TOLKO T-STRAND™ OSB PRODUCTS

Engineered for Strength, Built for Value

Tolko offers a comprehensive range of oriented strand board (OSB) products designed for superior consistency, durability, and strength backed by decades of expertise. Our OSB panels:

- Are crafted to exacting standards using renewable, recyclable, and biodegradable forest resources
- Feature Canadian Aspen wood fibre for lighter, stronger panels
- Are certified by APA – The Engineered Wood Association
- Come with industry-standard limited warranties for peace of mind
- Are available with optional zinc borate treatment for added protection
- Deliver the unbeatable value of engineered wood
- Contain no added urea-formaldehyde resin (NAUF).

Sustainable Forest Management

We manufacture our products from renewable, recyclable and biodegradable resources, and our practices are guided by our Forest Management Principles and Environmental Policy. We also adhere to globally-accepted Sustainable Forest Management (SFM) and Chain of Custody (CoC) standards.



Standing by our Products

Backed by industry-standard limited warranties.



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CANADIAN WOOD PRODUCTS



TOLKO T-STRAND OSB PRODUCTS
INTERNATIONAL SALES



OSB PRODUCTS