ORIENTED STRAND BOARD

PERFORMANCE BY DESIGN™

WALL SHEATHING

OSB Wall Sheathing Works.

Oriented Strand Board (OSB) is the wall sheathing you can count on to support your construction projects – and your bottom line.

Install OSB wall panels horizontally or vertically.

WHY OSB?

The fact is, a rigid wall system is the best way to strengthen a wood frame structure. And in either diaphragms or shear walls, OSB sheathing uses an engineered manufacturing process to provide superb performance in racking and deflection strength. Under all types of exterior cladding, OSB provides extra thermal resistance and acoustic control. In addition, OSB is highly workable. It's easy to saw, drill, nail, plane, file, glue, paint, or sand.

OSB WALLS STAND TOUGH AGAINST THE ELEMENTS.

Depending on where you live, Mother Nature has a habit of testing wall systems with an occasional earthquake or high winds. Studies show that wood frame structures with OSB-sheathed walls perform well against seismic forces or racking shear – much better than concrete or masonry. Where high winds are of concern, OSB wall sheathing provides peace of mind because of its strength and density.

Standing tough in diaphragms and shear walls.

YOU'LL FIND NO SURPRISES BEHIND OSB WALLS.

OSB's engineered manufacturing process ensures panel uniformity. And that removes uncertainty from every construction project. No core voids. No knotholes. Just performance. Panel after panel. By reducing waste, OSB can help ensure protective walls around your profit margin. And compared to insulated sheathing products, OSB provides increased rigidity and may be quicker to install since it requires fewer nails.

SBA®

Structural Board Association

Representing the OSB Industry

GRADES & RATINGS

OSB wall sheathing is recognized under all major model building codes for exterior and interior walls. Ratings and certifications are clearly marked on each panel.

OSB is manufactured to meet the performance requirements of the voluntary product standard PS2-92 Wood Based Structural Use Panels, CSA 0325 Construction Sheathing (and/or CSA 0437 OSB and Waferboard). OSB is certified to meet these standards by APA – *The Engineered Wood Association*, TECO/PFS, PSI, or other major wood certification organizations. In addition, OSB is regulated in all model building codes – BOCA, CABO, ICBO, ICC, NBCC, and SBCCI.

All OSB is manufactured to meet the Exposure 1 durability classification, which means panels are appropriate for use where construction delays may occur. Structural 1 panels are for use where shear and cross-panel strength are extra important, such as areas with high winds or seismic activity. Design values are now available for OSB. Contact the Structural Board Association for more information. For enhanced wall performance and use under stucco, SBA recommends selection of panels with greater span ratings than the minimum required.

SPACING OF PANELS

Space panels 1/8" apart on all four edges and 1/8" away from window and door opening frames. Include an expansion joint on all walls longer than 80 feet. (24 m approximately)

INSTALLATION & FASTENING

Standard 2 x 4 frame construction with wood or steel invites quick and easy installation of OSB wall sheathing in vertical and horizontal applications. Make sure to check stud spacing before selecting panels. During installation, ensure that framing around openings is protected by sheathing paper and proper flashing is installed over doors, windows and at changes in vertical direction. Keep bottom edge 8" above grade at all times. Oversize panels are available for increased flexibility. Minimum fastening schedule is 6d nails spaced 6" o.c. at supported edges , and 12" o.c. intermediate. Nails should be 3/8" from panel edge.

Remember

Extra fastening, closer spacing, and tie downs are required in high wind or seismic areas. Other requirements may also apply. Check with the local building authority for any special requirements.

SPAN RATINGS

Application	Stud Spacing	Span Rating	Common Thicknesses
Horizontal	16"	16/0, 20/0	5/16", 3/8"
		Wall–16	5/16", 3/8"
Vertical	16"	20/0, 24/0	3/8"
			15/32", 1/2"
		Wall–24	3/8", 15/32", 1/2"
Horizontal	24"	20/0, 24/0	3/8", 15/32", 1/2"
		Wall–24	3/8", 15/32", 1/2"
Vertical	24"	24/0, 24/16, 32/16	7/16", 15/32", 1/2"
		Wall–24	7/16", 15/32", 1/2"
RECOMMENDED UNDER STUCCO			
Horizontal (Edges Blocked)	16"	24/16	7/16"
Vertical	16"	32/16	15/32", 1/2"
Horizontal (Edges Blocked)	24"	24/16	7/16"
Vertical	24"	40/20	19/32"
Minimum Panel Width	24"	48" – When Used as Bracing	

Note: Under stucco use two layers of sheathing membrane and install adequate flashing or rain screen to prevent water entry into wall cavity.
(1" = 25.4 mm)

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PERFORMANCE BY DESIGN™

ROOF SHEATHING

When It Comes To Roof Sheathing, OSB Has You Covered.

Finally, when it comes to roof sheathing, Oriented Strand Board (OSB) has you covered.

In today's tight building and construction market, you need roof sheathing that offers proven performance, without straining your budget. You need OSB.

OSB is surface-textured for safer footing.

THE OSB ADVANTAGE.

OSB offers a long list of benefits as the preferred structural panel for roof sheathing. By combining the natural performance of wood with a truly engineered manufacturing process, OSB provides superior panel strength, rigidity, uniformity, and durability. In addition, OSB is highly workable. It's easy to saw, drill, nail, plane, file, glue, paint, or sand. But that's not all – not by a long shot.

A denser, more uniform panel.

WASTE NOT. WANT NOT.

OSB's engineered manufacturing process eliminates costly surprises like core-voids and knot holes, so you can use what you buy, and get what you pay for. And that can send your bottom line right through the roof.

ROOF SHEATHING FOR THE LONG HAUL.

Year in and year out, the elements prey upon roof systems. That calls for a tough roof sheathing – sheathing that stands up to heavy snow loads, strong winds, even seismic forces. OSB roof sheathing is manufactured for extra stiffness to provide a strong platform for any conventional roofing material. OSB roof sheathing also comes surface-textured for better and safer footing.

Available in a full range of thicknesses and span ratings.

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GRADES & RATINGS

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SPAN RATINGS (Minimum Panel Width – 24")

Support Spacing	Performance Based OSB Sheathing	
Edges Supported[1]	Span Rating	Common Thicknesses[2]
16"	16/0 24/0	5/16", 3/8" 3/8", 7/16"
24"	24/0 24/16	3/8", 7/16" 7/16", 15/32", 1/2"
32"	32/16 32/20	15/32", 1/2" 19/32", 5/8"
40"	40/20 40/24	19/32", 5/8" 23/32", 3/4"
48"	48/24	23/32", 3/4"
Edges Unsupported		
16"	16/0	5/16", 3/8"
20"	24/0	3/8", 7/16"
24"[3]	24/16	7/16", 15/32", 1/2"
32"	40/20	19/32", 5/8"

[1] Tongue-and-groove edges, panel edge clips, lumber blocking or other approved support methods.

[2] Panel thicknesses and span ratings apply for pitched or flat roofs; where flat roofs are used as walking decks, the requirements for floors shall apply.

NOTE: OSB sheathing panels are performance rated for, generally, a 30 psf live load (40 psf for 24/16; 35 psf for 48/24). (1 psf = 0.048 kPa)

[3] 7/16" (24/16) panels with unsupported edges allowed in some jurisdictions only. Check with local building officials. (1" = 25.4 mm)

INSTALLATION & FASTENING

OSB roof sheathing is characterized by quick and easy installation. Standard panels are 4' x 8' and come in a variety of thicknesses. Panels must be spaced with a minimum 1/8" gap on all butting edges, and edge clips should be applied when specified. Minimum fastening schedule is 8d nails spaced 6" o.c. at supported edges and 12" o.c. intermediate. Increased panel thicknesses, longer nails, and closer spacing are necessary in high wind areas. Remember: stand on supports when fastening panels, space panels 1/8" on all four sides. Include an expansion joint every 80 feet. (24 m approximately)

VENTILATION

In order to minimize the impact of moisture build-up in attic spaces, it is essential that adequate ventilation be installed with 50 percent of the ventilation at the roof ridge and 50 percent at the soffit area. Building codes specify that the minimum unobstructed vent area equal not less than 1/300 of the total insulated ceiling area. For roof slopes of less than 1 in 6, the free vent area must equal not less than 1/150 of the insulated ceiling area. Vent roof as specified in the appropriate building code or as shown on the approved drawings. Also ensure that exhaust fan ducts are properly vented to the outside and all projections such as pot light casings are sealed at the ceiling line. The roof should be surface dry prior to shingling and should be shingled as soon as possible after installation of sheathing.

SAFETY SUGGESTION

As roof sheathing may be slippery when wet, covered with frost, snow, ice or sawdust, installers should wear rubber soled footwear, use appropriate safety equipment, and use extreme caution when working on sloping roofs.

Remember

Extra fastening and closer spacing is required in high wind or seismic areas. Other requirements may also apply. Check with the local building authority for any special requirements.

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