

## FLOOR SHEATHING

# OSB: A Flooring Panel That Stands On Its Own.

Every Oriented Strand Board (OSB) flooring panel is engineered to perform. And that means dependability and uniformity on your next building project – from start to finish.

## THE OSB ADVANTAGE.

OSB panels are extra stiff and flat, making for easy and quick installation of subfloors and single-layer floors. Manufactured tongue-and-groove, square-edged, or touch-sanded, OSB provides resilience and strength for a variety of demanding applications. Panels are engineered for standard floor joist spacing and load requirements.



*OSB floors provide an extra rigid platform.*



*Engineered wood I-joists and OSB subflooring.*

And OSB's dependability won't leave you fighting warps, buckles, delamination, core voids, or knotholes. So every floor is a foundation to build upon.

## OSB SUBFLOORS.

An excellent choice for subfloors, OSB is installed over joists to provide a working platform and base for underlayment and finished flooring such as carpet, vinyl, tiles, or hardwood. Recent studies show that 3/4" OSB subfloors, when used under hardwood flooring,

are comparable to plywood in terms of nail holding ability. Commonly available in 4' x 8' panels, OSB subflooring also comes in a full range of thicknesses up to 1 1/8".

## OSB SINGLE-LAYER FLOORS.

Install it and be done. That's the advantage of OSB single-layer flooring – it serves as both subflooring and underlayment. This labor-saving panel is designed for use under pad and carpet or lightweight concrete. Properly installed, OSB single-layer floor systems can reduce squeaking and nail withdrawal. Most OSB single-layer floors are manufactured with tongue-and-groove edges for a snug, reliable fit.



**Structural Board Association**

*Representing the OSB Industry*

## GRADES & RATINGS

OSB is manufactured to meet the Exposure 1 durability classification, which means panels are appropriate for use where construction delays may be encountered. As with all wood products, care should be taken to protect floor panels from excess moisture.

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. Structural 1 panels are for use where shear and cross-panel strength are extra important,

such as areas with seismic activity. Design values are now available for OSB. Contact the Structural Board Association for more information.

## ENHANCED FLOOR PERFORMANCE

For enhanced floor performance, OSB panels may be field glued and nailed or screwed to the floor support system. Glue should also be applied to the T&G joint system. The adhesive shall be applied in accordance with the adhesive manufacturer's instruction. For increased floor performance or an engineered floor system, SBA recommends combining I-joists with panels with a greater span rating. For detailed information on these methods, contact the Structural Board Association.

## DESIGN CRITERIA FOR FLOOR CONSTRUCTION (Minimum Panel Width – 24")

Allowable Uniform Floor Loads for Rated OSB Sheathing Panels with Long Dimension Across Supports.

Panel Span Rating	Panel Thickness (Inch)	Maximum Span (Inches)	Allowable Loads (Pounds per square foot)	
			Maximum Live Load	Maximum Dead Load
16 oc	7/16, 19/32	16	100	10
20 oc	19/32, 5/8	20	100	10
24 oc	23/32, 3/4	24	100	10
32 oc	7/8, 1	32	100	10
48 oc	1-1/8	48	55	10

(1 psf = 0.048 kPa)

- <sup>1</sup> Panels are continuous over two or more spans and installed with the long panel dimension perpendicular to supports.
- <sup>2</sup> Uniform live load deflection limitation: 1/360 of the span.
- <sup>3</sup> Edges must have tongue-and-groove joints or must be supported with blocking.
- <sup>4</sup> Panels in a given thickness may be manufactured in more than one span rating. Panels with a span rating greater than the actual joist spacing may be substituted for panels of the same thickness with a span rating matching the actual joist spacing.
- <sup>5</sup> Check local building codes for minimum fastening schedule.

## SPAN RATINGS

### Subfloors

Maximum Joist Spacing	Span Ratings	Common Thicknesses
16"	24/16	7/16", 15/32", 1/2"
	32/16	15/32", 1/2"
20"	32/20	19/32", 5/8"
	40/20	19/32", 5/8"
24"	40/24	23/32", 3/4" <sup>(3)</sup>
	48/24	23/32", 3/4" <sup>(3)</sup>
	32/16 <sup>(1)</sup>	15/32", 1/2"
	40/20 <sup>(2)</sup>	19/32", 5/8"
32"	N/A	

<sup>(1)</sup> acceptable under 3/4" wood strip flooring installed at right angles to joists

<sup>(2)</sup> acceptable under 1-1/2" cellular or lightweight concrete, or 3/4" wood strip flooring installed at right angles to joists

<sup>(3)</sup> SBA recommends under lightweight concrete or 3/4" wood strip flooring (1" = 25.4 mm)

## Combination Subfloor-Underlayment (Single Floor Grades)

Maximum Joist Spacing	Span Rating	Common Thicknesses
20"	20 oc	19/32", 5/8" <sup>(1) (2)</sup>
24"	24 oc	23/32", 3/4" <sup>(3)</sup>
32"	32 oc	7/8", 1"
48"	48 oc	1-1/8"

## Remember

**Space panels according to manufacturer's instructions. Requirements for floor sheathing may vary throughout the country. Check with the local building authority for any special requirements.**



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Representing the OSB Industry

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