

**TABLE 2304.8(3)**  
**ALLOWABLE SPANS AND LOADS FOR WOOD STRUCTURAL PANEL SHEATHING AND**  
**SINGLE-FLOOR GRADES CONTINUOUS OVER TWO OR MORE SPANS WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS<sup>a</sup>**

SHEATHING GRADES		ROOF <sup>b</sup>				FLOOR <sup>c</sup>
Panel span rating roof/ floor span	Panel thickness (inches)	Maximum span (inches)		Load <sup>d</sup> (psf)		Maximum span (inches)
		With edge support <sup>e</sup>	Without edge support	Total load	Live load	
16/0	$\frac{3}{8}$	16	16	40	30	0
20/0	$\frac{3}{8}$	20	20	40	30	0
24/0	$\frac{3}{8}, \frac{7}{16}, \frac{1}{2}$	24	20 <sup>f</sup>	40	30	0
24/16	$\frac{7}{16}, \frac{1}{2}$	24	24	50	40	16
32/16	$\frac{15}{32}, \frac{1}{2}, \frac{5}{8}$	32	28	40	30	16 <sup>g</sup>
40/20	$\frac{19}{32}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}$	40	32	40	30	20 <sup>g, h</sup>
48/24	$\frac{23}{32}, \frac{3}{4}, \frac{7}{8}$	48	36	45	35	24
54/32	$\frac{7}{8}, 1$	54	40	45	35	32
60/32	$\frac{7}{8}, 1\frac{1}{8}$	60	48	45	35	32
SINGLE FLOOR GRADES		ROOF <sup>b</sup>				FLOOR <sup>c</sup>
Panel span rating	Panel thickness (inches)	Maximum span (inches)		Load <sup>d</sup> (psf)		Maximum span (inches)
		With edge support <sup>e</sup>	Without edge support	Total load	Live load	
16 o.c.	$\frac{1}{2}, \frac{19}{32}, \frac{5}{8}$	24	24	50	40	16 <sup>g</sup>
20 o.c.	$\frac{19}{32}, \frac{5}{8}, \frac{3}{4}$	32	32	40	30	20 <sup>g, h</sup>
24 o.c.	$\frac{23}{32}, \frac{3}{4}$	48	36	35	25	24
32 o.c.	$\frac{7}{8}, 1$	48	40	50	40	32
48 o.c.	$1\frac{3}{32}, 1\frac{1}{8}$	60	48	50	40	48

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kN/m<sup>2</sup>.

- a. Applies to panels 24 inches or wider.  
b. Uniform load deflection limitations  $\frac{1}{180}$  of span under live load plus dead load,  $\frac{1}{240}$  under live load only.  
c. Panel edges shall have approved tongue-and-groove joints or shall be supported with blocking unless  $\frac{1}{4}$ -inch minimum thickness underlayment or  $1\frac{1}{2}$  inches of approved cellular or lightweight concrete is placed over the subfloor, or finish floor is  $\frac{3}{4}$ -inch wood strip. Allowable uniform load based on deflection of  $\frac{1}{360}$  of span is 100 pounds per square foot except the span rating of 48 inches on center is based on a total load of 65 pounds per square foot.  
d. Allowable load at maximum span.  
e. Tongue-and-groove edges, panel edge clips (one midway between each support, except two equally spaced between supports 48 inches on center), lumber blocking or other. Only lumber blocking shall satisfy blocked diaphragm requirements.  
f. For  $\frac{1}{2}$ -inch panel, maximum span shall be 24 inches.  
g. Span is permitted to be 24 inches on center where  $\frac{3}{4}$ -inch wood strip flooring is installed at right angles to joist.  
h. Span is permitted to be 24 inches on center for floors where  $1\frac{1}{2}$  inches of cellular or lightweight concrete is applied over the panels.

**TABLE 2304.8(4)**  
**ALLOWABLE SPAN FOR WOOD STRUCTURAL PANEL COMBINATION SUBFLOOR-UNDERLAYMENT (SINGLE FLOOR)<sup>a</sup>**  
**(Panels Continuous Over Two or More Spans and Strength Axis Perpendicular to Supports)**

IDENTIFICATION	MAXIMUM SPACING OF JOISTS (inches)				
	16	20	24	32	48
Species group <sup>b</sup>	Thickness (inches)				
1	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	—	—
2, 3	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	—	—
4	$\frac{3}{4}$	$\frac{7}{8}$	1	—	—
Single floor span rating <sup>c</sup>	16 o.c.	20 o.c.	24 o.c.	32 o.c.	48 o.c.

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kN/m<sup>2</sup>.

- a. Spans limited to value shown because of possible effects of concentrated loads. Allowable uniform loads based on deflection of  $\frac{1}{360}$  of span is 100 pounds per square foot except allowable total uniform load for  $1\frac{1}{8}$ -inch wood structural panels over joists spaced 48 inches on center is 65 pounds per square foot. Panel edges shall have approved tongue-and-groove joints or shall be supported with blocking, unless  $\frac{1}{4}$ -inch minimum thickness underlayment or  $1\frac{1}{2}$  inches of approved cellular or lightweight concrete is placed over the subfloor, or finish floor is  $\frac{3}{4}$ -inch wood strip.  
b. Applicable to all grades of sanded exterior-type plywood. See DOC PS 1 for plywood species groups.  
c. Applicable to Underlayment grade, C-C (Plugged) plywood, and Single Floor grade wood structural panels.