

- For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kN/m².
- a. Applies to panels 24 inches or wider.
- b. Floor and roof sheathing complying with this table shall be deemed to meet the design criteria of Section 2304.8.
- c. Uniform load deflection limitations $\frac{1}{160}$ of span under live load plus dead load, $\frac{1}{320}$ under live load only.
- d. Panel edges shall have approved tongue-and-groove joints or shall be supported with blocking unless $\frac{1}{4}$ -inch minimum thickness underlayment or $\frac{1}{2}$ 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.
- e. Allowable load at maximum span.
- f. 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.
- g. For $\frac{1}{2}$ -inch panel, maximum span shall be 24 inches.
- h. Span is permitted to be 24 inches on center where $\frac{3}{4}$ -inch wood strip flooring is installed at right angles to joist.
- i. 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.

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

Table 3.1B Recommended Shear (pounds per foot) For Horizontal Wood Structural Panel Diaphragms with Framing of Douglas fir-Larch or Southern Pine^a for Seismic Loading

SEISMIC LOADING

[illegible]

Why are these less than 5/8" if IBC doesn't allow anything thinner than this?

a For framing of other species: (1) Find specific gravity for species of framing lumber in the *NDS*.
(2) Find shear value from table above for nail size of actual grade.
(3) Multiply value by the following adjustment factor = $[1 - (0.5 - G)]$, where G = specific gravity of the framing lumber. This adjustment factor shall not be greater than 1.
b Space nails maximum 12 in. o.c. along intermediate framing members (6 in. o.c. when supports are spaced 48 in. o.c.).
c Framing at adjoining panel edges shall be 3 in. nominal or wider, and nails shall be staggered where nails are spaced 2 in. o.c. or 2-1/2 in. o.c.

Notes: Design for diaphragm stresses depends on direction of continuous panel joints with reference to load, not on direction of long dimension of sheet. Continuous framing may be in either direction for blocked diaphragms.

