

TABLE R503.2.1.1(1)
ALLOWABLE SPANS AND LOADS FOR WOOD STRUCTURAL PANELS FOR ROOF
AND SUBFLOOR SHEATHING AND COMBINATION SUBFLOOR UNDERLAYMENT^{a,b,c}

SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (inch)	MAXIMUM SPAN (inches) d		LOAD (pounds per square foot, at maximum span)		MAXIMUM SPAN (inches)
		With edge support	Without edge support	Total load	Live load	
Sheathing^e		Roof^f				Subfloor^j
12/0	5 / 16	12	12	40	30	0
16/0	5 / 16	16	16	40	30	0
20/0	5 / 16	20	20	40	30	0
24/0	3 / 8	24	20 g	40	30	0
24/16	7 / 16	24	24	50	40	16
32/16	15 / 32, 1 / 2	32	28	40	30	16 h
40/20	19 / 32, 5 / 8	40	32	40	30	20 h,i
48/24	23 / 32, 3 / 4	48	36	45	35	24
60/32	7 / 8	60	48	45	35	32
Underlayment, C-C plugged, single floor^e		Roof^f				Combination subfloor underlayment^k
16 o.c.	19 / 32, 5 / 8	24	24	50	40	16 i
20 o.c.	19 / 32, 5 / 8	32	32	40	30	20 i,j
24 o.c.	23 / 32, 3 / 4	48	36	35	25	24
32 o.c.	7 / 8	48	40	50	40	32
48 o.c.	1 3 / 32, 1 1 / 8	60	48	50	40	48

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kN/m².

- a. The allowable total loads were determined using a dead load of 10 psf. If the dead load exceeds 10 psf, then the live load shall be reduced accordingly.
- b. Panels continuous over two or more spans with long dimension perpendicular to supports. Spans shall be limited to values shown because of possible effect of concentrated loads.
- c. Applies to panels 24 inches or wider.
- d. Lumber blocking, panel edge clips (one midway between each support, except two equally spaced between supports when span is 48 inches), tongue-and-groove panel edges, or other approved type of edge support.
- e. Includes Structural 1 panels in these grades.
- f. Uniform load deflection limitation: 1 / 180 of span under live load plus dead load, 1 / 240 of span under live load only.
- g. Maximum span 24 inches for 15 / 32 - and 1/2-inch panels.
- h. Maximum span 24 inches where 3/4-inch wood finish flooring is installed at right angles to joists.
- i. Maximum span 24 inches where 1.5 inches of lightweight concrete or approved cellular concrete is placed over the subfloor.
- j. Unsupported edges shall have tongue-and-groove joints or shall be supported with blocking unless minimum nominal 1/4-inch thick underlayment with end and edge joints offset at least 2 inches or 1.5 inches of lightweight concrete or approved cellular concrete is placed over the subfloor, or 3/4-inch wood finish flooring is installed at right angles to the supports. Allowable uniform live load at maximum span, based on deflection of 1 / 360 of span, is 100 psf.
- k. Unsupported edges shall have tongue-and-groove joints or shall be supported by blocking unless nominal 1/4-inch-thick underlayment with end and edge joints offset at least 2 inches or 3/4-inch wood finish flooring is installed at right angles to the supports. Allowable uniform live load at maximum span, based on deflection of 1 / 360 of span, is 100 psf, except panels with a span rating of 48 on center are limited to 65 psf total uniform load at maximum span.