

TABLE 503.2.1.1a
ALLOWABLE SPANS AND LOADS FOR PLYWOOD AND WOOD STRUCTURAL PANELS
FOR ROOF AND SUBFLOOR SHEATHING AND COMBINATION SUBFLOOR UNDERLAYMENT^{1,2,3}

SPAN RATING	NOMINAL PANEL THICKNESS (inch)	MAXIMUM SPAN (inches) ⁴		LOAD (pounds per square foot, at maximum span)		MAXIMUM SPAN (inches)	
		With Edge Support	Without Edge Support	Total Load	Live Load		
C-D, C-C, SHEATHING ⁵		ROOF ⁶				SUBFLOOR ⁶	
12/0	5/16	12	12	40	30	0	
16/0	5/16, 3/8	16	16	40	30	0	
20/0	5/16, 3/8	20	20	40	30	0	
24/0	3/8, 7/16, 1/2	24	20 ⁷	40	30	0	
24/16	7/16, 1/2	24	24	50	40	16	
32/16	15/32, 1/2, 5/8	32	28	40	30	16 ⁸	
40/20	19/32, 5/8, 3/4, 7/8	40	32	40	30	20 ^{8,9}	
48/24	23/32, 3/4, 7/8	48	36	45	35	24	
UNDERLAYMENT, C-C PLUGGED, SINGLE FLOOR ¹⁰		ROOF ⁶				COMBINATION SUBFLOOR UNDERLAYMENT ¹¹	
16 o.c.	19/32, 5/8	24	24	50	40	16 ⁸	
20 o.c.	19/32, 5/8, 3/4	32	32	40	30	20 ^{8,9}	
24 o.c.	23/32, 3/4	48	36	35	25	24	
32 o.c.	7/8, 1	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 psf = 0.0479 kN/m².

- 1 The allowable 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.
- 2 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.
- 3 Applies to panels 24 inches or wider.
- 4 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.
- 5 Includes Structural 1 panels in these grades.
- 6 Uniform load deflection limitation: 1/180 of span under live load plus dead load, 1/240 of span under live load only.
- 7 Maximum span 24 inches for 1/2-inch panels.
- 8 Maximum span 24 inches where 3/4-inch wood finish flooring is installed at right angles to joists.
- 9 Maximum span 24 inches where 1 1/2 inches of lightweight concrete or approved cellular concrete is placed over the subfloor.
- 10 Unsupported edges shall have tongue-and-groove joints or shall be supported with blocking unless nominal 1/4-inch thick underlayment or 1 1/2 inches of light-weight concrete or approved cellular concrete is placed over the subfloor, or 3/4-inch wood finish flooring is used. Allowable uniform live load at maximum span, based on deflection of 1/360 of span, is 100 psf.
- 11 Unsupported edges shall have tongue-and-groove joints or shall be supported by blocking unless nominal 1/4-inch-thick underlayment or 3/4-inch wood finish flooring is used. 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 o.c. are limited to 65 psf total uniform load at maximum span.

TABLE 503.2.1.1b
ALLOWABLE SPANS FOR PLYWOOD COMBINATION SUBFLOOR UNDERLAYMENT¹

IDENTIFICATION	SPACING OF JOISTS		
	16	20	24
Species Group ²			
1	1/2	5/8	3/4
2, 3	5/8	3/4	7/8
4	3/4	7/8	1

For SI: 1 inch = 25.4 mm, 1 psf = 0.0479 kN/m².

- 1 Plywood continuous over two or more spans and face grain perpendicular to supports. Unsupported edges shall be tongue-and-groove or blocked except where nominal 1/4-inch-thick underlayment or 3/4-inch wood finish floor is used. Allowable uniform live load at maximum span based on deflection of 1/360 of span is 100 psf.
- 2 Applicable to all grades of sanded Exterior-type plywood.