

# WEIGHTS OF BUILDING MATERIALS

## WOOD FRAMING

Weights shown are for Douglas fir-larch,  $G = 0.50$ , which is conservative for most structures.

Nominal Size	Weight (psf) for Spacing:			
	12 in. o.c.	16 in. o.c.	19.2 in. o.c.	24 in. o.c.
2 × 4	1.2	0.9	0.8	0.6
2 × 6	1.8	1.4	1.2	0.9
2 × 8	2.4	1.8	1.5	1.2
2 × 10	3.1	2.3	1.9	1.5
2 × 12	3.7	2.8	2.3	1.9
2 × 14	4.4	3.3	2.7	2.2
2 × 16	5.0	3.8	3.1	2.5
3 × 4	1.9	1.5	1.2	1.0
3 × 6	3.0	2.3	1.9	1.5
3 × 8	4.0	3.0	2.5	2.0
3 × 10	5.1	3.8	3.2	2.6
3 × 12	6.1	4.6	3.9	3.1
3 × 14	7.2	5.4	4.5	3.6
3 × 16	8.3	6.2	5.2	4.2
4 × 4	2.7	2.0	1.7	1.4
4 × 6	4.2	3.2	2.7	2.1
4 × 8	5.5	4.2	3.5	2.8
4 × 10	7.1	5.3	4.4	3.6
4 × 12	8.6	6.4	5.4	4.3
4 × 14	10.1	7.6	6.3	5.1
4 × 16	11.6	8.7	7.3	5.8

**PREENGINEERED FRAMING****Roof Trusses**

<b>Span (ft.)</b>	<b>Weight (psf of horizontal plan area)</b>
30	5.0
35	5.5
40	6.0
50	6.5
60	7.5
80	8.5
100	9.5
120	10.5
150	11.5

**Floor Joists (I-Joists and Open Web)**

<b>Depth (in.)</b>	<b>Weight (psf of horizontal plan area)</b>
$9\frac{1}{2}$	2.5
$11\frac{7}{8}$	3.5
14	4.0
16	4.5
18	5.0
20	5.5
24	6.0
26	6.3
28	6.6
30	7.0

## OTHER MATERIALS

	Weight (psf)
Sheathing	
Plywood (per $\frac{1}{8}$ -in. thickness)	0.4
Gypsum sheathing (per 1-in. thickness)	5.0
Lumber sheathing (per 1-in. thickness)	2.5
Floors and floor finishes	
Asphalt mastic (per 1-in. thickness)	12.0
Ceramic or quarry tile ( $\frac{3}{4}$ -in. thickness)	10.0
Concrete fill (per 1-in. thickness)	12.0
Gypsum fill (per 1-in. thickness)	6.0
Hardwood flooring ( $\frac{7}{8}$ -in. thickness)	4.0
Linoleum or asphalt tile (per $\frac{1}{4}$ -in. thickness)	1.0
Slate (per 1-in. thickness)	15.0
Softwood ( $\frac{3}{4}$ -in. thickness)	2.5
Terrazzo (per 1-in. thickness)	13.0
Vinyl tile ( $\frac{1}{8}$ -in. thickness)	1.4
Roofs	
Copper or tin	1.0
Felt	
3-ply ready roofing	1.5
3-ply with gravel	5.5
5-ply	2.5
5-ply with gravel	6.5
Insulation (per 1-in. thickness)	
Cellular glass	0.7
Expanded polystyrene	0.2
Fiberboard	1.5
Fibrous glass	1.1
Loose	0.5
Perlite	0.8
Rigid	1.5
Urethane foam with skin	0.5
Metal deck	3.0
Roll roofing	1.0
Shingles	
Asphalt ( $\frac{1}{4}$ -in.)	2.0
Clay tile	12.0
Clay tile with mortar	22.0
Slate ( $\frac{1}{4}$ -in.)	10.0
Wood	3.0
Ceilings	
Acoustical fiber tile	1.0
Channel-suspended system	
Steel	2.0
Wood furring	2.0
Plaster on wood lath	8.0
Walls and partitions	
Brick (4-in. nominal thickness)	40
Glass (per 1-in. thickness)	15
Glass block (4-in. thickness)	18
Glazed tile	18
Plaster	8.0
Stone (4-in. thickness)	55
Stucco ( $\frac{7}{8}$ -in. thickness)	10.0
Vinyl siding	1.0
Windows (glass, frame, sash)	8.0
Wood paneling	2.5