

**Appendix E:**  
**Roofing Material Weights**



## Appendix E: Roofing Material Weights

These weights are based on the best available data. Variations in weight exist from one section of the country to another, as they do from one manufacturer to another. When the building plans and specifications show a particular manufacturer's product, the manufacturer's weights should be obtained and used.

<u>Material</u>	<u>Weight</u> (P.S.F.)
<u>Acoustical Tile</u>	
Applied directly with mastic to ceiling	1/2
Attached to rock lath and furring channels	4-1/2
Attached to wood furring strips	2-1/2
<u>Asbestos</u>	
Board, 3/16"	2
Corrugated	4
<u>Asphalt Bituminous Paving</u>	
"Black Top", 1"	12
<u>Brick</u>	
4" Common	40
<u>Built-up Roofing</u>	
3 Ply felt composition, no gravel	3
5 Ply felt composition, no gravel	4
3 Ply felt and gravel	5-1/2
5 Ply felt and gravel	6-1/2
<u>Ceramic Tile</u>	
5/16" Mosaic Floor Tile	2-1/2
with 1" mortar bed	11-1/2
Paver Tile	
3/8" thick	4
1/2" thick	6

<u>Material</u>	<u>Weight (P.S.F.)</u>
<u>Ceramic Tile (cont'd)</u>	
Quarry Tile	
1/2" thick	6
3/4" thick	8-1/2
<u>Concrete, Lightweight</u>	
Aerocrete, 1"	4 to 6-1/2
Haydite, 1"	7 to 8-1/2
Nailcode, 1"	6-1/4
Perlite, 1"	3 to 4
Pumice, 1"	5 to 7-1/2
Vermiculite, 1"	2 to 5
<u>Concrete and Hollow Clay Tile Floor System (One-Way Concrete Joists)</u>	
16" inch wide tile and 4" inch wide concrete joists	
4" deep with 2" topping	52
5" deep with 2" topping	56
6" deep with 2" topping	62
7" deep with 2" topping	67
8" deep with 2" topping	71
9" deep with 2" topping	75
10" deep with 2" topping	79
<u>Fiber Board</u>	
1/2" thick	1
<u>Fiber Sheathing</u>	
1/2" thick	1
<u>Glass</u>	
1/4" Plate	3-1/2
1/2" Plate	6-1/2

<u>Material</u>	<u>Weight</u> (P.S.F.)
<u>Glass (cont'd)</u>	
Window	1
Block	18-20
<u>Gypsum</u>	
Block	
2" Solid	11-1/2
3" Hollow	10 to 12
4" Hollow	13 to 15-1/2
6" Hollow	17 to 22
Gypsum, 1" plain, in mineral form	4
Pour gypsum on steel rails per inch of thickness	5
Roof planks - 2" thick	12
<u>Insulation</u>	
Bats, blankets, 1"	1/2
Cork board, 1"	1/2
Fiber glass	1-1/2
Foam glass	1
Rigid insulation boards	1-1/2
<u>Metals</u>	
Plate steel, 1"	41
Corrugated steel sheets, 20 guage	2
Steel panels, 18 guage	3
Lead	
1"	59
1/2"	29
1/4"	14
Movable steel office panels	5
Steel decks (without insulation or finish)	2 to 20-1/2

<u>Material</u>	<u>Weight</u> (P.S.F.)
<u>Mortar</u>	
1" thick	9
<u>Plaster</u>	
plaster, portland cement, sand, 1" thick	8
plaster directly applied, 3/4" thick	6
plaster on fiber lath, 1/2" thick	5
plaster on gypsum lath, 1/2" thick	6
plaster on metal lath, 3/4" thick	6
plaster on wood lath, 3/4" thick	5
plaster on suspended channels and metal lath, 1" thick	10
Stucco, 1"	11
7/8" stucco on metal lath	10
3/4" stucco on wood lath	9
Precast Cementitious-Fiber Planks/Panels	3
<u>Precast Concrete Planks</u>	
Doxplank	
4" thick	20
with 1-5/8 inch concrete topping	40
6" thick	35
with 1-5/8 inch concrete topping	55
8" thick	45
with 2" inch concrete topping	69
10" thick	55
with 2" inch concrete topping	79
Spancrete	
4" thick	30
6" thick	45
8" thick	60
10" thick	75
12" thick	90

<u>Material</u>	<u>Weight</u> (P.S.F.)
Flexicore	
Standard weight	
6" thick	45
with 2" concrete topping	70
8" thick	53
with 2" concrete topping	78
12" thick	68
with 2-1/2" concrete topping	100
Light weight	
6" thick	35
with 2" concrete topping	60
8" thick	43
with 2" concrete topping	68
12" thick concrete topping	87
<u>Shingles</u>	
Asbestos, 5/32"	2
Asphalt strip shingles	3
Tile, cement flat	13
Tile, cement ribbed	16
Tile, clay mission	13-1/2
Tile, clay shingle type	8 to 16
Wood	2-1/2
<u>Slate</u>	
3/16"	7
1/4"	9-1/2
<u>Soils</u>	
Clay and gravel, 1"	8-1/2
Earth, dry and loose, 1"	6
Earth, dry and packed, 1"	8
Sand or gravel, dry and loose, 1"	7

<u>Material</u>	<u>Weight</u> (P.S.F.)
<u>Stone Masonry</u>	
Cast stone, 1 "	12
Granite ashler, limestone, marble, 1 inch	13
Sandstone, 1"	11
<u>Terrazzo</u>	
1"	13
1-1/2" on 1" mortar bed	28-1/2 to 30
1" on 2"	38
<u>Wood</u>	
3" creosoted blocks on motar 1/2" mortar bed	21
2" creosoted blocks on motar 1/2" mortar base	18
3" creosoted blocks on motar 1/8" mastic bed	12
2" creosoted blocks on motar 1/8" mastic bed	9
25/32" hardwood floor	3
3/4" sheathing, yellow pine	3-1/2
3/4" sheathing & sub-flooring, spruce, hemlock, fir	2-1/2
7/8" sheathing, white pine	2-1/2
<u>Siding</u>	
6" bevel	1
8" bevel	1-1/2
<u>Shingles</u>	
6-1/2" to weather	1
<u>Plywood</u>	
5/16" finished	1
1/2" finished	1-1/2
3/8" sheathing	1