**Weights of Building Materials – Pounds Per Square Foot [PSF]**

### CEILING

- Acoustical fiber board \( ^{(1)} \) 1
- Suspended steel channel system \( ^{(1)} \) 2
- Suspended wood channel system 2.5
- 2x8 ceiling joists @ 16" o.c., R-49 insulation, 1/2" gypsum board 7
- 1" Plaster 8
- 1/2" gypsum board \( ^{(1)} \) 2.2
- 5/8" gypsum board \( ^{(1)} \) 2.75

### ROOF

- Fiberglass shingles 3
- Asphalt shingles \( ^{(1)} \) 2
- Wood shingles \( ^{(1)} \) 3
- Spanish clay tile \( ^{(1)} \) 19
- Concrete roof tile 12
- Composition Roofing:
  - Three-ply ready roofing \( ^{(1)} \) 1
  - Four-ply felt and gravel \( ^{(1)} \) 5.5
  - Five-ply felt and gravel \( ^{(1)} \) 6
- 20 gage metal deck \( ^{(1)} \) 2.5
- 18 gage metal deck \( ^{(1)} \) 3
- 0.05" thick polyvinyl chloride polymer membrane \( ^{(2)} \) 0.35
- 1" fiberglass batt insulation 0.04
- 1" loose fiberglass insulation 0.04
- 1" loose cellulose insulation 0.14
- 1" rigid insulation \( ^{(1)} \) 1.5
- Blowing wool insulation R-38 (16"deep) 0.62
- 3/16" slate \( ^{(1)} \) 7
- 1/4" slate \( ^{(1)} \) 10
- Single-ply (no ballast) \( ^{(1)} \) 0.7
- Single-ply (ballasted) 11
- Dry gravel \( ^{(1)} \) 8.7
- 2x8 rafters @ 16" o.c., fiberglass shingles, 15# felt, 3/8" sheathing 8
- Skylight: metal frame w/ 3/8" wire glass \( ^{(1)} \) 8

### FLOOR

- 1" reinforced regular weight concrete 12.5
- 1" plain lightweight concrete \( ^{(1)} \) 8
- 7/16" cementitious backerboard 3
- Ceramic or quarry tile (3/4") on 1/2" mortar bed \( ^{(1)} \) 16
- Ceramic or quarry tile (3/4") on 1" mortar bed \( ^{(1)} \) 23
- 1" mortar bed 12
- 1" slate \( ^{(1)} \) 15
- 3/8" marble tile 6
- 3/8" ceramic floor tile \( ^{(1)} \) 4.7

### FLOOR (cont.)

- Hardwood flooring, 7/7-in \( ^{(1)} \) 4
- 1/4" linoleum or asphalt tile \( ^{(1)} \) 1
- BCI/AJS\(^\circ\) joists @ 16" o.c., 3/4" sheathing, 1/2" gypsum board 10
- 3/4" Gyp-Crete\(^\circ\) topping 6.5
- Carpet & Pad 2.0
- Waterproofing Membranes
  - Bituminous, smooth surface \( ^{(1)} \) 1.5
  - Liquid applied \( ^{(1)} \) 1
- 11/32" or 3/8" Plywood – OSB\(^{(3)}\) 1.0 - 1.2
- 15/32" or 1/2" Plywood - OSB\(^{(3)}\) 1.4 - 1.7
- 19/32" or 5/8" Plywood - OSB\(^{(3)}\) 1.8 - 2.1
- 23/32" or 3/4" Plywood - OSB\(^{(3)}\) 2.2 - 2.5
- 7/8" Plywood - OSB\(^{(3)}\) 2.6 - 2.9
- 1 1/8" Plywood - OSB\(^{(3)}\) 3.3 - 3.6
- 1/2" cementitious backerboard 3
- 1-1/2" softwood T & G decking 4.6

### SHEATHING

- 11/32" or 3/8" Plywood – OSB\(^{(3)}\) 1.0 - 1.2
- 15/32" or 1/2" Plywood - OSB\(^{(3)}\) 1.4 - 1.7
- 19/32" or 5/8" Plywood - OSB\(^{(3)}\) 1.8 - 2.1
- 23/32" or 3/4" Plywood - OSB\(^{(3)}\) 2.2 - 2.5
- 7/8" Plywood - OSB\(^{(3)}\) 2.6 - 2.9
- 1 1/8" Plywood - OSB\(^{(3)}\) 3.3 - 3.6
- 1/2" cementitious backerboard 3
- 1-1/2" softwood T & G decking 4.6

### FRAMING

- 2x4 @ 16" o.c. 1.1
- 2x6 @ 16" o.c. 1.7
- 2x8 @ 16" o.c. 2.2
- 2x10 @ 16" o.c. 2.9
- 2x12 @ 16" o.c. 3.5
- BCI\(^\circ\) 4500s, 5000 or 5000s @ 12" o.c. 2.0 - 2.9
- BCI\(^\circ\) 4500s, 5000 or 5000s @ 16" o.c. 1.5 - 2.2
- BCI\(^\circ\) 4500s, 5000 or 5000s @ 19.2" o.c. 1.0 - 1.5
- BCI\(^\circ\) 6000 or 6000s @ 12" o.c. 2.2 - 3.4
- BCI\(^\circ\) 6000 or 6000s @ 16" o.c. 1.7 - 2.6
- BCI\(^\circ\) 6000 or 6000s @19.2" o.c. 1.4 - 2.1
- BCI\(^\circ\) 6000 or 6000s @ 24" o.c. 1.1 - 1.7
- BCI\(^\circ\) 60, 60s, 6500 or 6500s @ 12" o.c. 2.3 - 3.8
- BCI\(^\circ\) 60, 60s, 6500 or 6500s @ 16" o.c. 1.7 - 2.9
- BCI\(^\circ\) 60, 60s, 6500 or 6500s @19.2" o.c. 1.4 - 2.4
- BCI\(^\circ\) 60, 60s, 6500 or 6500s @ 24" o.c. 1.2 - 1.9
- BCI\(^\circ\) 90 or 90s @ 12" o.c. 3.9 - 4.9
- BCI\(^\circ\) 90 or 90s @ 16" o.c. 2.9 - 3.7
- BCI\(^\circ\) 90 or 90s @ 19.2" o.c. 2.4 - 3.1
- BCI\(^\circ\) 90 or 90s @ 24" o.c. 1.9 - 2.5
- AJ\(^\circ\) 140, 150, 190 or 20 @ 12" o.c. 2.2 - 3.3
- AJ\(^\circ\) 140, 150, 190 or 20 @ 16" o.c. 1.7 - 2.5
- AJ\(^\circ\) 140, 150, 190 or 20 @ 19.2" o.c. 1.4 - 2.1
- AJ\(^\circ\) 140, 150, 190 or 20 @ 24" o.c. 1.1 - 1.7
- AJ\(^\circ\) 25 or 30 @ 12" o.c. 3.1 - 3.9
- AJ\(^\circ\) 25 or 30 @ 16" o.c. 2.3 - 2.9
- AJ\(^\circ\) 25 or 30 @ 19.2" o.c. 1.9 - 2.4
- AJ\(^\circ\) 25 or 30 @ 24" o.c. 1.6 - 2.0
### WALL
- 5/16” x 7-1/2” fiber cement lap siding: 3
- 4” clay brick (1): 39
- 1/4” ceramic wall tile (1): 3.1
- 1 3/4” Cultured Stone®: 12
- 2x4 studs @ 16” o.c., 5/8” gypsum, insulation, 3/8” siding (1): 11
- 2x6 studs @ 16” o.c., 5/8” gypsum, insulation, 3/8” siding (1): 12
- Wood or steel studs, 1/2” gypsum board each side (1): 8
- Exterior stud walls w/ brick veneer (1): 48
- Windows: glass, frame and sash (1): 8
- Stucco: 10
- Log Wall: 10” diameter: 26
- Glass Block:
  - 4” thick - standard (hollow): 20
  - 3” thick - standard (hollow): 16
  - 4” thick - thick face: 30
  - 3” thick - solid glass block: 40

### MISCELLANEOUS
- 1” of sand: 8
- 1” of water: 5.2
- Hay: baled (dry) (2): 15 PCF(2)
- Straw: baled (dry) (2): 8 PCF(2)
- Saturated soil (garden/landscaped roof): 135 PCF
- Grand Piano: 1000 LB

Include at least 1.5 psf in all dead load summations to account for incidentals such as plumbing, ducts, light fixtures, etc.


(2) National Farm Building Code (Canada) 1995. Value in pounds per cubic foot (PCF), multiply by maximum height to obtain PSF.


(4) Duro-Last General Specifications, Duro-Last Roofing, Inc. 2005