

TABLE 305.3.1.2  
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT<sup>a</sup>

CLIMATE ZONE	LOG WALL, $W_L$ <sup>h</sup>	FENESTRATION U-FACTOR <sup>b</sup>	SKYLIGHT U-FACTOR <sup>b</sup>	FENESTRATION SHGC <sup>b</sup>	CEILING R-VALUE	WOOD FRAME WALL R-VALUE <sup>c</sup>	FLOOR R-VALUE <sup>d, e</sup>	BASEMENT <sup>f</sup> / CRAWL WALL R-VALUE	SLAB R-VALUE & DEPTH	HEATED SLAB R-VALUE <sup>g</sup>
1	5" min.	0.50	0.75	0.25	30	13	13	0	0	5
2	5" min.	0.40	0.65	0.25	38	13	13	0	0	5
3	5" min.	0.35	0.55	0.25	38	20 or 13 + 5	19	5 / 13	5, 2-ft.	5
4 & MARINE	5" min.	0.33	0.55	0.40	49	20 or 13 + 5	19	10 / 13	10, 2-ft.	10
5 EXCEPT MARINE	5" SG ≤ 0.50; 7" SG > 0.50	0.32	0.55	NR	49	20 or 13 + 5	30	15 / 19	10, 2-ft.	10
6		0.30	0.55	NR	49	20 or 13 + 5	30	15 / 19	15, 4-ft.	15
7 & 8		0.30	0.55	NR	49	20 + 5 or 13 + 10	38	15 / 19	15, 4-ft.	15

For SI: 1 foot = 304.8 mm.

Notes to Table 305.3.1.2:

- R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.
- The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in climate zones 1–3, where the SHGC for such skylights does not exceed 0.30.
- "13+5" means R-13 cavity insulation plus R-5 continuous insulation. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
- Or insulation sufficient to fill the framing cavity, with R-19 as the absolute minimum in Climate Zones 5–8.
- Insulate perimeter of floor system to match floor R-value requirement with basement/crawl foundations.
- "15 / 19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15 / 19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-10 continuous insulation on the interior or exterior of the home.
- The required insulation shall be installed beneath the entire slab for heated slabs.
- $W_L$  is the average wall-log width. Nominal callouts will be larger (e.g., a 5" log would be 6x or 7" diameter; a 7" would be 8x or 9" diameter). SG = specific gravity.