

[NY] R402.1.2 Insulation and Fenestration Criteria

The *building thermal envelope* shall meet the requirements of Table R402.1.2, based on the *climate zone* specified in Chapter 3. In *climate zone 6*, the *building thermal envelope* shall meet either the requirements of the *climate zone 6* "Option 1" row in Table R402.1.2 or the requirements of the *climate zone 6* "Option 2" row in Table R402.1.2.

[NY] TABLE R402.1.2

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

CLIMATE ZONE	FENESTRATION U-FACTOR ^b	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC ^{b, e}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^c WALL R-VALUE
4	0.32	0.55	0.40	49	20 or 13+5 ^h	8/13	19	10 /13	10, 2 ft	10/13
5	0.30	0.55	NR	49	20 or 13+5 ^h	13/17	30 ^g	15/19	10, 2 ft	15/19
6 Option 1	0.30	0.55	NR	49	20+5 ^h or 13+10 ^h	15/20	30 ^g	15/19	10, 4 ft	15/19
6 Option 2	0.28	0.55	NR	60	23 cavity	19/21	30 ^g	15/19	10, 4 ft	15/19

NR = Not Required.

For SI: 1 foot = 304.8 mm.

- a. *R-values* are minimums. *U-factors* and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed *R-value* of the insulation shall be not less than the *R-value* specified in the table.
- b. The fenestration *U-factor* column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation on the interior of the basement wall. "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. Alternatively, compliance with "15/19" shall be R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home.
- d. R-5 insulation shall be provided under the full slab area of a *heated slab* in addition to the required slab edge insulation *R-value* for slabs, as indicated in the table. The slab edge insulation for *heated slabs* shall not be required to extend below the slab.
- e. Reserved.
- f. Reserved.
- g. Alternatively, insulation sufficient to fill the framing cavity and providing not less than an *R-value* of R-19.
- h. The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "13+5" means R-13 cavity insulation plus R-5 continuous insulation.
- i. Mass walls shall be in accordance with Section R402.2.5. The second *R-value* applies where more than half of the insulation is on the interior of the mass wall.