

**ALABAMA DEPARTMENT OF ECONOMIC AND COMMUNITY AFFAIRS
ALABAMA ENERGY AND RESIDENTIAL CODES BOARD
APPENDIX A**

**TABLE R402.1.2 (N1102.1.2)
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT ^a**

CLIMATE ZONE	FENESTRATION U-FACTOR ^b	SKY-LIGHT U-FACTOR ^b	GLAZED FENESTRATION SHGC ^b	CEILING R-VALUE ^f	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ^e	FLOOR R-VALUE	BASEMENT WALL R-VALUE ^c	SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE ^c
2	0.35 ^f	0.55	0.27	30	13	4/6	13	0	0	0
3	0.35 ^f	0.55	0.27	30	13	5/8	19	5/13 ^d	0	5/13

For SI: 1 foot = 304.8 mm.

- a. 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.
- b. 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 through 3 where the SHGC for such skylights does not exceed 0.30.
- c. "5/13" means R-5 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
- d. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.
- e. The second R-value applies when more than half the insulation is on the interior of the mass wall.
- f. Reference R402.2.2.1

**TABLE 40202.1.4
EQUIVALENT U-FACTORS^a**

Climate Zone	Fenestration U-Factor	Skylight U-Factor	Ceiling U-Factor ^c	Frame Wall U-Factor	Mass Wall U-Factor ^b	Floor U-Factor	Basement Wall U-Factor	Crawl Space Wall U-Factor
2	0.35	0.55	0.035	0.084	0.165	0.064	0.360	0.477
3	0.35	0.55	0.035	0.084	0.141	0.047	0.360	0.136

- a. Non-fenestration U-factors shall be obtained from measurement, calculation, or an approved source.
- b. When more than half the insulation is on the interior, the mass wall u-factors shall be a maximum of 0.14 in Zone 2 and 0.12 in Zone 3.
- c. Reference R402.2.2.1