

# Prescriptive Residential Energy Code Compliance

IRC Table N1102.1.2 (R402.1.2) Insulation and Fenestration Requirements by Component <sup>a,j</sup>

Climate Zone	Fenestration U-factor	Skylight <sup>b</sup> U-Factor	Glazed Fenestration SHGC	Ceiling R-Value <sup>k</sup>	Wood Frame Wall R-Value	Mass Wall R-Value <sup>k</sup>	Floor R-Value	Basement <sup>c</sup> Wall R-Value	Slab <sup>d</sup> R-Value and Depth	Crawl Space <sup>c</sup> Wall R-Value
5 and Marine 4	0.32	.55	NR	49	20 Or 13+5 <sup>h</sup>	13/17	30 <sup>g</sup>	15/19	10, 2 ft	15/19

## Energy Code Compliance

See the compliance options below. Plans must be submitted demonstrating energy code compliance.

### 1. Option 1: Total UA Alternative Approach

A copy of the REScheck compliance report is attached to the plans. (This includes both the cover sheet and the inspection checklist.)

### 2. Option 2: Prescriptive Component Approach

**3. Option 3: Energy Rating Index (ERI).** Approved rating software tools defined in the ANSI/RESNET/ICC 301 standard will generate a report with proposed rating score and inspection checklist, required to be submitted. Maximum ERI Score - 61.

**4. Option 4: Other Simulated Performance** software analysis completed and signed

- a. R-values are minimums. U-Factors and solar heat gain coefficient (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 solar heat gain coefficient (SHGC) column applies to all glazed fenestration.
- c. The first R-value applied to continuous insulation, the second to framing cavity insulation; either insulation meets the requirements.
- d. R-5 shall be added to the required slab edge R-values for heated slab.
- g. Insulation sufficient to fill the framing cavity, R-19 minimum.
- h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation.
- i. The second R-value applies when more than half the insulation is on the interior of the mass wall.
- j. For residential log home building thermal envelope construction requirements see R402.6.
- k. **The Ceiling R-Value in Climate Zone 5 may be reduced to R-38 when the Wood Frame Wall R-Value is increased to R-21 and the Fenestration U-Factor is reduced to 0.31.**