Prescriptive Residential Energy Code Compliance

IRC Table N1102.1.2 (R402.1.2) Insulation and Fenestration Requirements by Component

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

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.