ENVELOPE COMPONENT APPROACH (Page 2 of 4) ENV-2C

Opaque Surface Details

For the furred portion of Mass Walls see Furring Strips Construction Table below.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tag/ID$^3$</td>
<td>Assembly Name or Type$^2$</td>
<td>Framing Material and Size$^2$</td>
<td>Thickness, Spacing, or Other$^1$</td>
<td>U-factor$^4$</td>
<td>JA4 Table Number$^5$</td>
<td>Framed Cavity R-value$^6$</td>
<td>Continuous Insulation R-value$^7$</td>
<td>JA4 Assembly Row/Col$^8$</td>
<td>Proposed Assembly U-factor$^9$</td>
</tr>
</tbody>
</table>

Note: For furred assemblies use the Mass and Furring Strips Construction Table below. See Page JA4-3 & Page JA4-5 for Equation 4-1 or 4-4.

1. For Tag/ID indicate the identification name that matches the building plans.
2. Indicate the Assembly Name or type: Roof/Ceiling, Walls, Floors, Slabs, Crawl Space, Doors and etc...Indicate the Frame type and Size: For Wood, Metal, Metal Buildings, Mass, enter 2x4, 2x6, or etc... see JA4 for other possible frame type assemblies.
3. Enter the thickness for mass in inches or Spacing between framing members enter; 16” or 24”OC; or Other for all other assembly description such as Concrete Sandwich Panel, Spandrel Panel, Logs, Straw Bale Panel and etc....
4. Based on the Climate Zone; enter the Standard U-factor from Table 143-A, B or C for each different assembly Name or type.
5. Enter the Table number that closely resembles the proposed assembly.
6. Enter the R-value that is being installed in the wall cavity or between the framing; otherwise, enter "0”.
7. Enter the Continuous Insulation R-value for the proposed assembly; otherwise, enter “0”.
8. Enter the row and column of the U-factor value based on Column F Table Number and enter the Assembly U-factor in Column J.
9. The Proposed Assembly U-factor, Column J, must be equal to or less than the Standard U-factor in Column E to comply.

Furring Strips Construction Table for Mass Walls Only

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Properties of Masonry and Concrete Walls From Reference Joint Appendix Table 4.3.5, 4.3.6, 4.3.7</td>
<td>Added Interior or Exterior Insulation in Furring Space from Reference Joint Appendix Table 4.3.13</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass Thickness$^1$</td>
<td>Assembly Name or Type$^2$</td>
<td>JA4 Table Number$^3$</td>
<td>JA4-Mass Cell Value$^4$</td>
<td>Mass U-Factor$^5$</td>
<td>Insulation Layer Thickness</td>
<td>Frame Thickness</td>
<td>Frame Type Wood or Metal</td>
<td>Furring Cavity R-Value</td>
<td>JA4-Mass Cell Value</td>
<td>Effective R-Value$^6$</td>
<td>Final Assembly U-factor$^7$</td>
<td>Comment</td>
</tr>
</tbody>
</table>

1. Indicate the Mass Thickness from Reference Joint Appendix JA.
2. Indicate the Assembly Name or type: Roof/Ceiling, Walls, Floors, Slabs, Crawl Space, Doors and etc...Indicate the Frame type and Size: For Wood, Metal, Metal Buildings, Mass, enter 2x4, 2x6, or etc... see JA4 for other possible frame type assemblies.
3. Enter the Table number that closely resembles the proposed assembly.
4. Enter the row and column of the U-factor value.
5. Enter the Effective R-value listed in the JA4 Table Number.
6. The Final Assembly is calculated by using Equation 4-1 or Equation 4-4 of the Reference Joint Appendix JA4. Enter the value in Column L.
7. Insert the Final Assembly U-factor value back on to the Opaque Surface Details table in Column J.