**CEPI-212-21 (MODIFICATION)**

**IECC®: TABLE C407.4.1(1)**

**Proponents:** Jay Crandell, P.E., ABTG/ARES Consulting, representing Foam Sheathing Committee of the American Chemistry Council (jcrandell@aresconsulting.biz)

**2021 International Energy Conservation Code**

**Modify as follows:**

(shown as yellow highlighting for clarity)

**REVISED MODIFICATION** (SHOWING ONLY CHANGES TO THE ORIGINAL PROPOSAL)

TO ADDRESS CONCERN THAT THE OLD MODIFICATION (BELOW) MISSED THE LIMIT IN SECTION C402.3 TO ONLY APPLY TO LOW-SLOPE ROOFS OVER COOLED CONDITIONED SPACES FOR COOL ROOFS IN CZ 0-3

**TABLE C407.4.1(1)**

**SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS**

**Portions of table not shown remain unchanged.**

|  |  |  |
| --- | --- | --- |
| **BUILDING COMPONENT CHARACERISTICS** | **STANDARD REFERENCE DESIGN** | **PROPOSED DESIGN** |
| Roofs | Type: insulation entirely above deck | As proposed |
| Gross area: same as proposed | As proposed |
| U-factor: as specified in Table C402.1.4 | As proposed |
| Solar absorptance: 0.75 except as specified in Section ~~Table~~ C402.3 for Climate Zones 0, 1, 2, and 3 | As proposed |
| Emittance: 0.90 except as specified in Section ~~Table~~ C402.3 for Climate Zones 0, 1, 2, and 3 | As proposed |

**Reason for Modification:** The original proposal is modified by switching “Table C402.3” to “Section C402.3” so that the application to only cool roofs over cooled conditions spaces in Climate Zones 0-3 applies in addition to the solar reflectance and thermal emittance.

**Reason Statement:** This proposal aligns the standard reference design roof parameters with conditions required in the prescriptive path for roof solar reflectance and thermal emittance in Section C402.3. The prescriptive provisions are intended to serve as the basis for the standard reference design in the performance path of Section C407.

**Cost Impact:** The code change proposal will neither increase nor decrease the cost of construction.

This proposal addresses an apparent error or omission in aligning the standard reference design with the prescriptive path which is unchanged by this proposal and is the basis of cost-effectiveness.

**OLD MODIFICATION – MISSING LIMIT TO LOW-SLOPE ROOF PER SECTION C402.3.**

**TABLE C407.4.1(1)**

**SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS**

**Portions of table not shown remain unchanged.**

|  |  |  |
| --- | --- | --- |
| **BUILDING COMPONENT CHARACERISTICS** | **STANDARD REFERENCE DESIGN** | **PROPOSED DESIGN** |
| Roofs | Type: insulation entirely above deck | As proposed |
| Gross area: same as proposed | As proposed |
| U-factor: as specified in Table C402.1.4 | As proposed |
| Solar absorptance: Climate Zone 0, 1, 2, and 3 = 0.45 and 0.75 in all others ~~except as specified in Table C402.3 for Climate Zones 0, 1, 2, and 3~~ | As proposed |
| Emittance: Climate Zone 0, 1, 2, and 3 = 0.75 and 0.90 in all others ~~except as specified in Table C402.3 for Climate Zones 0, 1, 2, and 3~~ | As proposed |

**Reason for Modification:** The modification doesn’t change the technical intent of the proposal, but changes formatting to provide the required values for solar absorptance and emittance directly in table rather than referencing Table C402.3 for Climate Zones 0, 1, 2, and 3.