FS122-18

IBC: 1404.3.2, 1404.3.2.1 (New), 1404.3.2.2 (New), 1404.3.2.2.1 (New), TABLE 1404.3.2

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2018 International Building Code

Revise as follows:

1404.3.2 Class III vapor retarders. Class III vapor retarders shall be permitted where any one of the conditions in Table 1404.3.2 is met. ~~Only Class III vapor retarders shall be used on the interior side of frame walls where foam plastic insulating sheathing with a perm rating of less than 1 is applied in accordance with Table 1404.3.2 on the exterior side of the frame wall.~~

Add new text as follows:

1404.3.2.1 Foam plastic insulating sheathing for moisture control with Class III vapor retarders. . Where foam plastic insulating sheathing with a perm rating of less than 1 is installed in accordance with Table 1404.3.2 on the exterior side of the frame wall, only Class III vapor retarders shall be used on the interior side of the frame wall.

1404.3.2.2 Spray foam plastic insulation for moisture control with Class III vapor retarders. . For purposes of compliance with Table 1404.3.2, spray foam with a maximum permeance of 1.5 perms at the installed thickness applied to the interior cavity side of wood structural panels, fiberboard, insulating sheathing or gypsum shall be deemed to meet the continuous insulation R-value requirement where the spray foam R-value meets or exceeds the specified continuous insulation R-value.

1404.3.2.2.1 Hybrid insulation for moisture control with Class IIII vapor retarders. . For the purposes of compliance with Table 1404.3.2, the combined R-values of spray foam plastic insulation and continuous insulation shall be permitted to be counted towards the continuous R-value requirement.

Revise as follows:

TABLE 1404.3.2
CLASS III VAPOR RETARDERS

ZONE	CLASS III VAPOR RETARDERS PERMITTED FOR:[a]
Marine 4	Vented cladding over wood structural panels Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with *R*-value ≥ R2.5 over 2 × 4 wallContinuous insulation with *R*-value ≥ R3.75 over 2 × 6 wall
5	Vented cladding over wood structural panels Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with *R*-value ≥ R5 over 2 × 4 wall Continuous insulation with *R*-value ≥ R7.5 over 2 × 6 wall
6	Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with *R*-value ≥ R7.5 over 2 × 4 wall Continuous insulation with *R*-value ≥ R11.25 over 2 × 6 wall
7 and 8	Continuous insulation with *R*-value ≥ R10 over 2 × 4 wall Continuous insulation with *R*-value ≥ R15 over 2 × 6 wall

For SI:1 pound per cubic foot = 16 kg/m^3.

~~a.Spray foam with a maximum permanence of 1.5 perms at the installed thickness applied to the interior cavity side of wood structural panels, fiberboard, insulating sheathing or gypsum is deemed to meet the continuous insulation requirement where the spray foam *R*-value meets or exceeds the specified insulating sheathing *R*-value.~~

Reason:
The current Table 1404.3.2 mandates continuous insulation for moisture control but provides an exception for spray foam in the cavity. The table does not currently permit a combination of continuous and cavity; this is inconsistent with the intent of the cavity option. Additionally, with prescriptive options in the IECC including hybrid insulation systems with a combination of cavity and continuous, this will help correlate the IBC and IECC requirements.The proposal adds charging language that clarifies how the combination of different insulating methods can provide appropriate moisture control so that the total required R-Value can be achieved by continuous, cavity, or a combination of insulation strategies.

Cost Impact
The code change proposal will decrease the cost of construction .

By adding options for insulation used to control moisture and condensation, the proposal increases flexibility which will include lower cost options.

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