



ADVISORY

January 20, 2020

Subject:

Use of Exterior Insulation Finish Systems (EIFS) in Buildings Constructed Under Part 9 of the NBC 2019 – Alberta Edition

Advisory:

The purpose of this document is to show under what conditions EIFS may be used in buildings governed by Part 9 of the NBC 2019 AB - Edition. The use of Exterior Insulation Finish Systems (EIFS) in construction of houses or other buildings under the requirements of Part 9 is now specifically addressed as an acceptable solution in Subsection 9.27.3. of Division B of the NBC 2019 - AB Edition. Where an EIFS does not comply with this subsection, in accordance with Division A, Clause 1.2.1.1.(1)(b), it would have to be shown that the EIFS system complies with the objectives of the NBC 2019 – AB Edition through the alternative solutions process. The use of EIFS also affects the spatial separation requirements in Division B, Subsection 9.10.15.

Material Requirements

Subsection 9.27.13. contains material requirements as well as design and installation requirements for EIFS systems. In accordance with Division A, Article 1.2.2.1.(2), a CCMC evaluation report is one method that may be used as a means of determining compliance with the NBC 2019 - AB Edition.

Where an EIFS cannot be shown to comply with Subsection 9.27.13. either directly through the standards or through a CCMC Evaluation Report it may only be used in a building governed by Part 9 of the NBC 2019- AB Edition under the requirements of an Alternative Solution. An Alternative Solution must be prepared by a professional Architect or Engineer registered to practice in Alberta and provide a project specific letter that includes:

1. A design sketch that includes the wall assembly and stipulates all of the components complete with the signature and stamp of the professional.

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2. Listings or evaluations for specific products used where there are limitations on the use of the product use and/or to demonstrate compliance with the NBC – AB Edition (i.e. CCMC evaluations for an insulation type).
3. How the designed system components achieve at least the minimum level of performance required by Division B in the areas defined by the objectives and functional statements attributed to the following:
 - a. Sentence 9.25.2.2.(1) Insulation Materials
 - b. Article 9.27.3.7. Flashing Materials
 - c. Article 9.27.4.2. Materials (caulking)
 - d. Sentence 3.1.5.5.(1) Combustible Components for Exterior Walls
 - e. Sentence 5.6.1.1.(1) Required Protection from Precipitation
 - f. Sentence 9.27.1.1.(5) Cladding General
 - g. Article 9.27.2.1. Minimizing and Preventing Ingress and Damage
 - h. Sentence 9.27.2.2.(4) Minimum Protection from Precipitation Ingress
 - i. Sentence 9.27.2.3.(1) First and Second Planes of Protection
 - j. Article 9.27.3.1. Elements of the Second Plane of Protection
 - k. Sentence 9.27.5.1.(1) Attachment (of cladding)
4. Provide a commitment to conduct inspection(s) during construction, AND.
5. Commit to provide a letter of verification at the completion of the construction (including date of inspection(s)) that the wall assembly has been constructed in accordance with the requirements of the National Building Code 2019 – Alberta Edition the engineer design and the installation instructions for the products used (which may include CCMC evaluations for specific products).

Spatial Separation Requirements

There are considerations in the use of EIFS regarding spatial separation of houses in Subsection 9.10.15. of Division B. The limiting distance (as defined in the NBC 2019 - AB Edition) that is most common and to which most issues occur is 1.2m. When the limiting distance is less than 1.2m, the cladding is required to be non-combustible or comply with CAN/ULC S134. The limiting distance is measured to the face of the exposing building face (as defined in the NBC 2019 AB Edition). Ideally the face of the foundation or sheathing is set back a bit to allow for the designed cladding. However, in practice that distance is usually measured to the face of basement foundation or to the face of exterior sheathing. Division C, Article 2.2.2.4. permits a 2% variation in a dimension from the ABC. This clause has been used in the past to accept cladding to project into the 1.2m limiting distance by a maximum 24mm. This is the normal dimensional allowance for materials like vinyl siding, stucco or other thin claddings. We have traditionally accepted a real property report with the limiting distance shown as 1.2m to the face of foundation or sheathing providing the cladding is vinyl, stucco or other thin material.

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EIFS would project more than the 2% allowance into the 1.2m. Therefore it is not permitted as a cladding where the drawings show a limiting distance of 1.2m to the foundation or sheathing or where the real property report indicates 1.2m or less to the foundation wall or sheathing. In order for EIFS to be permitted, the limiting distance would have to be indicated to be to the face of the EIFS and be not less than 1.2m or the EIFS would have to comply with the requirements of CAN/ULC S134.

Another concern with a cladding that projects closer than the 1.2m normal minimum limiting distance is in the area of glazed openings permitted. If the face of EIFS were to be located at less than 1.2m limiting distance then there would be no windows permitted in that building face. That would be regardless of whether the EIFS complied with ULC S134 or not.

Note: This interpretation decision was reached at the Codes and Standards Technical Interpretation Committee meeting on January 20, 2020.

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