

NOTICE

Fire-Resistant Coatings on Exterior Sheathing

On May 3, 2009 the Alberta Building Code 2006 was amended to help prevent High Intensity Residential Fires. The changes to the Alberta Building Code were intended to address fire safety in new buildings.

Background

Where combustible siding is proposed for use on a building within the scope of Article 9.10.15.2. and the limiting distance is less than 1.2 metres (or 2.4 metres where the 10 minute fire department response time cannot be met as specified by 9.10.15.3.), Sentence 9.10.15.5.(2) requires combustible siding to be installed over gypsum sheathing or masonry.

A number of products using fire-resistant coatings have come into the marketplace. These products are being marketed as an alternative to gypsum sheathing. When a wood-based sheathing product treated with a fire-resistant coating is proposed for use to meet Sentence 9.10.15.5.(2), an application for alternative solution must be submitted to the Authority Having Jurisdiction for consideration as a variance. This notice provides guidance to safety codes officer (SCOs) for proper evaluation of these applications for alternative solutions.

Recommendation

Alberta Municipal Affairs recommends that SCOs only consider wood-based sheathing materials treated with fire-resistant coatings as alternative solutions to gypsum sheathing under combustible siding where it can be shown the proposed alternative adequately addresses:

- **Fire resistance** – the product must have equivalent fire performance characteristics to 12.7 mm gypsum sheathing (generally accepted to be 15 mins as tested according to CAN/ULC-S101, “Fire Endurance Tests of Building Construction and Materials”).
- **Flame spread** – the product must have equivalent flame spread performance characteristics to 12.7 mm gypsum sheathing (generally accepted to be a flame spread of less than 25 as tested according to CAN/ULC-S102, “Test for Surface Burning Characteristics of Building Materials and Assemblies”).
- **Water & UV Resistance** – the product must be capable of withstanding expected water and ultraviolet exposures and maintain fire and flame spread performance characteristics over repeated exposures.

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- **Freeze/Thaw Resistance** – the product must be capable of withstanding expected temperature variations in Alberta jurisdictions and maintain fire and flame spread performance characteristics over repeated exposures.
- **Water Vapour Transmission** – the product as installed should have no detrimental effects to the building envelope's ability to shed moisture.
- **Quality Control** – the manufacturer must be able to demonstrate that the product is manufactured and applied to the wood-based substrate in a consistent and verifiable method.

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