

Wood cladding in noncombustible buildings

The NBC contains rules on the use of combustible claddings and supporting assemblies on certain types of buildings required to be of noncombustible construction. Specifically, the use of wall assemblies containing both combustibles cladding elements and non-loadbearing wood framing members is allowed.

These wall assemblies can be used as in-fill or panel type walls between structural elements, or be attached directly to a load-bearing noncombustible structural system. This applies in unsprinklered buildings up to three-storeys and sprinklered buildings of any height.

The wall assembly must satisfy the criteria of a test that determines its degree of flammability and the interior surfaces of the wall assembly must be protected by a thermal barrier (for example, 12.7 mm gypsum board) to limit the impact of an interior fire on the wall assembly.

These requirements stem from fire research that indicated that certain wall assemblies containing combustible elements do not promote exterior fire spread beyond a limited distance.

Each assembly must be tested in accordance with CAN/ULC-S134 to confirm compliance with fire spread and heat flux limitations specified in the NBC.

Fire-retardant-treated wood (FRTW) decorative cladding is permitted on first floor canopy fascias. In this case, the wood must undergo accelerated weathering before testing to establish the flame-spread rating. A FSR of 25 or less is required.

For further information, refer to the following resources:

National Building Code of Canada

CAN/ULC-S134 Standard Method of Fire Test of Exterior Wall Assemblies