ROOFING EXCELLENCE

RESIDENTIAL INFORMATION BULLETIN

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FIRE TESTS ON ROOF COVERINGS

The ASTM E108 (or ULC S107) fire tests are intended to provide a means of ranking roof coverings according to their ability to resist conditions that arise during actual fires outside of a building. The tests do not assess roof combustion if the source of the fire is within a building. Class A simulates conditions characteristic of severe fire exposure while Class B and Class C simulate moderate and light conditions, respectively. Although differences exist between the three classes of fire resistance, it should be noted that a Class C rating still provides adequate protection during a typical exterior fire. All three classes must undergo identical tests; only the duration and relative size of the flaming areas are altered.

The simulated exposure conditions include: an intermittent flame, a spreading flame, a burning brand, and a flying brand. Some or all of these conditions may arise during an actual exterior fire.

Intermittent flames may occur as flames travel across a roof covering. Cycling air currents may cause a flame to come in contact with a portion of the roof covering for a brief period and then subside. The repetition of this cycle is simulated by the intermittent flame test.

Spreading flames occur when a flaming material or combustible material is on fire. Flames may travel from one portion of a roof covering to another and the spread of flame test evaluates the ease at which flames will travel.

Burning brands occur when a flaming material falls onto a roof covering from above. This may be a portion of the roof that has collapsed while on fire and subsequently falls onto a part of the roof below. Burning branches and embers can also be categorized as burning brands. This test will observe for the appearance of sustained flaming or glowing areas below or adjacent to the burning brand that has been placed on the roof coverings.

Flying brands occur when a flaming roof covering breaks into pieces of flaming particles that continue to burn. This may occur if a portion of the roof is on fire and the prevailing winds is strong enough to carry flying brands to other areas of the roof that are not on fire. This test is conducted in a similar manner to the burning brand test, but a simulated breeze is used to evaluate whether or not flying brands may develop from the roof covering.

For additional information on any of CRC's products or application requirements, visit us on the web at www.canroof.com, or contact us in Eastern Canada at 1-800-268-6077, Western Canada at 1-800-661-1034 or the United States at 1-800-433-2811.

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