NFPA 285 Performance Requirements

The NFPA 285 test provides a method for determining the flammability characteristics of exterior non load-bearing wall assemblies. The test method is intended to evaluate the combustible components within the wall. The test simulates a multi-story fire performance of an entire wall assembly. The NFPA 285 testing apparatus is a two story wall assembly that includes a window opening on the first floor. Pass / Fail criteria are given and are based on flame propagation and temperatures within the wall assembly. Flame propagation must not occur either vertically or laterally beyond an acceptable distance.

Code References: International Building Code 2012

1403.5 Vertical and lateral flame propagation. Exterior walls on buildings of Type I, II, III or IV construction that are greater than 40 feet (12 192 mm) in height above grade plane and contain combustible water-resistive barrier shall be tested in accordance with and comply with the acceptance criteria of NFPA 285. However, EXCEPTIONS are noted for non-combustible wall assemblies.

Exceptions:

1. Walls in which the water-resistive barrier is the only combustible component and the exterior wall has a wall covering of brick, concrete, stone, terra cotta, stucco, or steel with minimum thickness in accordance with Table 1405.2.

NFPA 285 Compliant Wall Assemblies:

The following IMETCO IntelliScreen Wall Assemblies meet the performance requirements of NFPA 285 (2012) as required by the International Building Code:

1. Exterior Sheathing: 5/8" thick, exterior type gypsum sheathing.
2. Water resistive barrier applied to exterior sheathing: IntelliWrap SA.
3. Exterior Insulation: Roxul Comfortboard 110 or any non-combustible insulation.
4. Exterior Wall Covering: Metal exterior wall coverings such as steel, aluminum, copper, etc. using any standard direct mechanical attachment to the support system.

Prepared By

Q. Jonnie Hasan, PE, BECxP, CxA+BE
Director of Engineering & Sales Support