

Allura fiber cement is in compliance with NFPA 285 tested wall assemblies

The National Fire Protection Agency (NFPA) 285 has issued standards governing the use of foam plastic insulation and water-resistive barriers used in exterior walls (type I-IV construction type) per the IBC.

Allura fiber cement siding is non-combustible (Class A fire rating) and so, by itself, does not create a need for supplemental testing. It is compliant with NFPA 285. If Allura is specified as part of the exterior wall assembly, a number of foam plastic insulation manufacturers have published NFPA 285 compliant wall assemblies that has been tested with fiber cement siding. Please refer to your insulation manufacturer for those documents.

NFPA 285: Preventing the Spread of Fire in Multi-Story Buildings

Established by the National Fire Protection Association, NFPA 285 is a method for testing the rate of fire spread within vertical wall assemblies in multistory commercial buildings. The NFPA 285 test was developed to help builders and owners reduce the potential for the upward spread of fire, should disaster strike.

NFPA 285 is becoming increasingly necessary due to the increasing use of products that boost a building's energy efficiency. While new cladding materials, insulation, and weather barriers have been proven to cut a building's energy consumption and lifecycle costs, they are also combustible components.

Once such components are within wall assemblies, they present specific fire risks for non-load-bearing exterior walls in multistory buildings, as these assemblies allow air to move freely through wall cavities. Accordingly, code compliance now includes wall assemblies with combustible cladding materials, insulation and weather barriers if they are installed on non-combustible construction types I-V.

The NFPA 285 test: 30 minutes of flame

NFPA 285 testing ultimately attempts to identify wall assemblies which limit the spread of interior fires to other floors or adjacent areas in multistory buildings. It is an assembly test that requires the construction of a two-story apparatus in a testing facility, then a monitored burn of the assembly for 30 minutes.

The test scenario is a flashover fire – in this case, one started by a gas-fired burner on the interior of the wall test assembly. This interior fire source burns until it ignites a second gas-fired burner positioned near a replicated window opening. Once it does, the test focuses on flame propagation in key areas:

Exterior wall assembly surface

- Vertically within combustible components from one story to the next
- Over the interior wall assembly surface from one story to the next
- Laterally from fire origin to adjacent compartments or spaces

If the wall assembly stays within acceptable flame spread and temperature limits for 30 minutes, it passes the test. Passing wall assemblies must be built as tested on site, as any modifications to the passing assembly void an authorized ruling.

For further information on the NFPA 285 test standard, visit the websites below.

Dow- 285 Extension Tests Analysis available at 866.583.2583.

Please consult the following links for more information on the NFPA 285 test standard:

http://www.seabec.org/assets/symposium/nfpa-285-ceu_seabec.pdf

<https://www.airbarrier.org/conference/NFPA%20285%20and%20What%20it%20Means%20for%20Air%20Barriers%20-%20Jess%20Beitel.pdf>

http://www.dupont.com/content/dam/assets/products-and-services/construction-materials/assets/Navigating_Wall_Assembly_Fire_Testing.pdf

<http://www.constructionspecifier.com/specifying-nfpa-285-testing/>