
NFPA 285 is performed using a two-story chamber called the Intermediate-Scale, Multi-Story Test Apparatus (ISMA). The test method evaluates the flammability of non-load-bearing wall assemblies containing combustible components for vertical/horizontal flame propagation and temperature rise. This is accomplished by exposing an exterior wall assembly to a calibrated fire on both the interior side of the first floor and at the opening on the exterior surface of the wall assembly. Thermocouples are placed throughout the wall cavity and on the wall surfaces to capture the temperature rise during the test. Duration of the flame exposure is 30 minutes with a 10 minute observation period.

2012 IBC
2012 International Building Code (IBC) Section 1403.5 states the following:

“Vertical and lateral flame propagation. Exterior walls on buildings of Type I, II, III, or IV construction that are greater than 40 feet in height above grade plane and contain a combustible water-resistant barrier shall be tested in accordance with and comply with the acceptance criteria of NFPA 285.”

Conclusion
If you are a manufacturer who produces combustible WRBs or a contractor who uses combustible WRBs on projects, this new code requirement will affect you. If you have any questions on the code changes or would like to discuss details of the fire testing, please contact fire@archtest.com.
Matt has 6 years of experience in Product Testing and Certification Services. His primary role is to assist clients through each step of the certification process by generating product-specific test plans, educating clients on approval procedures, and assisting clients with developing a code-approved quality system.

About The Author
Matt Freeborn  Project Engineer, Code Compliance

Matt has 6 years of experience in Product Testing and Certification Services. His primary role is to assist clients through each step of the certification process by generating product-specific test plans, educating clients on approval procedures, and assisting clients with developing a code-approved quality system.

References
2009 and 2012 International Building Code
NFPA 285

About Architectural Testing
Architectural Testing (ATI) is a leading testing and certification body for building materials. Architectural Testing has the capabilities to perform thousands of test methods on building products. Specific fire testing offerings can be found to the right.

Architectural Testing has also expanded upon its certification abilities to include a Product Listing program. Look for a follow-up informational bulletin on ATI’s Product Listing Program.

Fire-related Testing Currently Offered

- ASTM D 635 - Standard Test Methods for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
- ASTM D 1929 - Standard Test Methods for Determining Ignition Temperature of Plastics
- ASTM E 136 - Standard Test Methods for Behavior of Materials in a Vertical Tube Furnace at 750°C
- NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

Fire-related Testing Soon-To-Be Offered

- NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth