

February 17, 2012

Fact Sheet on ICC and NFPA Model Code Revisions Requiring Polypropylene (PP) and High-Density Polyethylene (HDPE) Restroom Privacy Partitions as Interior Wall Finish be Tested in Accordance with NFPA 286 Room-Corner Test

1. What happened?
 - a. The International Code Council's (ICC) International Building Code (IBC), and International Fire Code (IFC), and the National Fire Protection Association (NFPA) *Life Safety Code*® (NFPA 101®), Fire Code(NFPA1) have been revised requiring polypropylene (PP) and high-density polyethylene (HDPE) restroom privacy partitions as interior wall finish be tested in accordance with NFPA 286 *Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth* (the room-corner test). These changes are effective with the 2009 editions of the ICC codes and the 2012 editions of the NFPA codes.
2. What changed?
 - a. With recent increase in use of PP¹ and HDPE for building products both the ICC and NFPA membership concluded that the base of these products was such that testing per ASTM E-84 *Standard Test Method for Surface Burning Characteristics of Building Materials* (the tunnel test) is not the best test method to use with certain plastics and that NFPA 286 is a better way to test them.
3. How are the changes adopted and implemented?
 - a. The codes and standards mean nothing and are not enforceable until adopted by a governmental agency such as a city, county, state or federal government. Some agencies adopt new editions very rapidly and others take years. There is no established schedule.
4. How are the changes enforced?
 - a. Code enforcement varies from jurisdiction to jurisdiction. An item such as this may be overlooked unless the code enforcers are educated to look out for it. With regard to fire and building codes, enforcing regulations on existing Interior Wall and Ceiling Finish is very difficult. For example, how many building managers have the flame spread information on their wall coverings? The answer is very few.
5. Who enforces the changes?
 - a. With regard to adopted building codes, these are usually enforced by the plan check officials or building officials at the time of construction. It is not typical for a building official to inspect an existing building unless a problem occurs. Fire Marshals typically enforce fire codes and inspect existing buildings.
6. What are the consequences for non-compliance with an adopted code?
 - a. Again, this varies from jurisdiction to jurisdiction. In new construction, it could result in a "stop work" order. In enforcement in existing situations, the consequences could range from nothing to fines and the extreme case shutting the building down.

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¹ Polypropylene (PP) was added in the 2012 editions of the IBC and IFC

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7. What would this mean to the selection and the specification of toilet partitions?
 - a. Before specifying or installing toilet partitions in jurisdictions where these editions of the model codes are adopted, the Interior Wall and Ceiling Finish requirements for the occupancy in which the toilet partitions are being installed must be checked.
 - b. The non-PP and HDPE toilet partitions must comply with the requirements of ASTM E-84, *Standard Test Method for Surface Burning Characteristics of Building Materials*. Typically this would be Class B (FSI between 26 and 75 and $SDI \leq 450$). However, there might be cases where Class A (FSI ≤ 25 , $SDI \leq 450$) could be required or Class C² (FSI between 76 and 200, $SDI \leq 450$) would be permitted.
 - c. PP and HDPE toilet partitions must comply with all of the following when tested using the test protocol of NFPA 286, *Standard Methods of Fire Test for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth*:
 - 1) During the 40kW exposure, flames shall not spread to the ceiling.
 - 2) The flame shall not spread to the outer extremity of the sample on any wall or ceiling.
 - 3) Flashover, as described in NFPA 286, shall not occur.
 - 4) The peak heat release rate throughout the test shall not exceed 800kW.
 - 5) The total smoke released³ throughout the test shall not exceed 1,000m²
8. What would this mean to the selection and the specification of PP and HDPE toilet partitions?
 - a. Before specifying or installing PP or HDPE toilet partitions in jurisdictions where the 2009 or 2012 ICC codes or the 2012 NFPA codes are adopted, architects, interior designers, contractors, building owners that plan on using PP or HDPE restroom privacy partitions should request copies of NFPA 286 room-corner test reports from an accredited laboratory showing that the partitions meet these requirements.

² Where Class C is required, Class B is also permitted.

³ NFPA 101 limits the restriction on “smoke released” to new installations