



## CLARIFICATION MEMO

Community Development Department  
Building Division

**Date:** January 15, 2008

**From:** Kimberley Mack, AIA  
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**Subject:** International Mechanical Code – Section 602.2.1

This memo is to clarify the use of approved insulating materials on combustible elements in a return air plenum.

Section 602.2.1 of the 2006 International Mechanical Code requires all materials within plenums to be noncombustible or have a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E 84. Exception #5 states – “combustible materials enclosed in noncombustible raceways or enclosures, approved gypsum board assemblies or enclosed in materials listed and labeled for such application.”

This exception permits the combustible element to be enclosed with a material that meets the requirements of the base section, flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E 84. Section 604.3 also states the same requirement for insulation coverings and linings.

From the 2006 IMC Update Manual, Section 602.2.1 states the change as – “Deletes the word “exposed” concerning materials in plenums to prohibit wrapping a plastic pipe in a material than does not comply with ASTM E84 and claiming it is no longer exposed in the plenum”. The contractor cannot just wrap the combustible item with whatever they want. It must meet the requirements as stated in Section 602.2.1 and its exceptions.

There are several materials available on the market that will meet the requirements stated above. The installation of the products shall be in accordance with the manufacture’s requirements.

Examples of approved applications would be – (but not limited to)

- a. Minimum ½” gypsum board wrapped over wood framing members,
- b. Pipe insulation meeting the FSI 25 and SDI 50 when tested per ASTM E84,
- c. Plenum wrap material meeting the FSI 25 and SDI 50 when tested per ASTM E84.

*City of Helena, Montana*