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Industrialized Housing and Buildings

Technical Bulletin

IHB TB 12-02 – Blower Door Test or Visual Inspection -- Residential Occupancies

Issued June 29, 2012

Code: 2009 International Energy Conservation Code (IECC)

Referenced Sections: 402.4.2 Air sealing and insulation (Mandatory)

The 2009 Energy Conservation Code becomes effective for the Texas Industrialized Housing and Buildings program on July 1, 2012. There are a number of changes in the 2009 code that will affect construction practices in the residential modular industry.

This bulletin will address one of these changes: the requirement of Section 402.4.2 for air sealing and insulation to be verified through either a testing option or a visual inspection option.

Manufacturers of industrialized housing will need to revise their installation requirements to require completion of one of the following options. Manufacturers of industrialized buildings that are classified as R-2, R-3, and R-4 occupancies will also need to require completion of one of the following options.

1. **IECC 402.4.2.1 – Testing option.** The testing option requires that a blower door test be conducted. This test would be conducted at the installation site of the residential building. Building envelope tightness and insulation installation are considered acceptable when tested air leakage is less than seven air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psi (50 Pa). Testing occurs after rough in and after installation of penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. During this test:
 - Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
 - Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers;
 - Interior doors shall be open;
 - Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
 - Heating and cooling systems shall be turned off;
 - HVAC ducts shall not be sealed; and
 - Supply and return registers shall not be sealed.
2. **IECC 402.4.2.2 – Visual inspection option.** Building envelope tightness and insulation installation shall be considered acceptable when the list of items in Table 402.4.2 are field verified. Portions of this construction will be verified in the plant and the remainder must be verified during installation.