

1323.0543 SECTION 5.4.3, AIR LEAKAGE.

Subpart 1. **Building envelope sealing.** ASHRAE Standard 90.1, Section 5.4.3.1, is amended and subsections added to read:

5.4.3.1 Building envelope air sealing. The building envelope shall contain an air barrier consisting of a material or combination of materials to resist the passage of air into or out of the conditioned or semiconditioned space. The following areas of the building envelope shall be sealed in a permanent manner to minimize air leakage at all edges, joints, openings, and penetrations:

- (a) joints around fenestration and door frames;
- (b) junctions between walls and foundations, between walls at building corners, between walls and structural floors or roofs, and between walls and roof or wall panels;
- (c) openings at penetrations of utility services through walls, roofs, and floors;
- (d) site-built fenestration and doors;
- (e) building assemblies used as ducts or plenums;
- (f) joints, seams, and penetrations of vapor retarders;
- (g) across construction, control, and expansion joints;
- (h) across junctions between different building assemblies; and
- (i) around all other penetrations through the building envelope.

5.4.3.1.1 The air barrier shall be located between the warm-in-winter surface and the winter design dew point location within the building component or assembly.

Exception: When the building component or assembly is either integrally insulated concrete or integrally insulated concrete masonry.

5.4.3.1.2 Drawings shall indicate the location of the air barrier system.

Subp. 2. **Fenestration and doors.** ASHRAE Standard 90.1, Section 5.4.3.2, is amended to read:

5.4.3.2 Fenestration and doors. Air leakage for fenestration and doors shall be determined in accordance with National Fenestration Rating Council 400 (NFRC 400) or AAMA/WDMA/CSA 101/I.S.2/A440. Air leakage shall be determined by an independent laboratory accredited by a nationally recognized accreditation organization, such as the National Fenestration Rating Council, and shall be labeled and certified by the manufacturer. Air

leakage under a pressure differential of 75 Pa (1.57 psf) shall not exceed 1.0 cfm/ft² for glazed swinging entrance doors and for revolving doors and 0.4 cfm/ft² for all other products.

Subp. 3. **Recessed lighting fixtures.** ASHRAE Standard 90.1, Section 5.4.3, is amended by adding a subsection to read:

5.4.3.5 Recessed lighting fixtures. Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces by being:

1. IC-rated and labeled with enclosures that are sealed or gasketed to prevent air leakage to the ceiling cavity or unconditioned space;
2. IC-rated and labeled as meeting ASTM E 283 when tested at 1.57 pounds per square foot (75 Pa) pressure differential with no more than 2.0 cubic feet per minute (0.944 L/s) of air movement from the conditioned space to the ceiling cavity; or
3. located inside an airtight sealed box with clearances of at least 0.5 inch (13 mm) from combustible material and three inches (76 mm) from insulation.

Statutory Authority: *MS s 326B.02; 326B.101; 326B.106; 326B.13*

History: *33 SR 1473*

Published Electronically: *June 17, 2009*