

Subp. 7. **Air leakage.**

- A. **Doors and windows.** Exterior doors and windows must have air infiltration rates not exceeding those shown in this subpart. The allowable air infiltration rates are tested at a pressure differential of 1.567 pounds per square foot, which is equivalent to the impact pressure of a 25-mile per hour wind.

Allowable Air Infiltration Rate

Elements	Value	Dimensional Unit
Windows	0.34	cfm per foot of operable sash crack
Residential doors	0.5	cfm per square foot of door area
Nonresidential doors	1.25	cfm per square foot of door area

For doors, compliance with the criteria for air leakage must be determined by ASTM E283-91.

- B. **Joints.** Joints in the building conditioned envelope that are sources of air leakage must be sealed in accordance with this item. Required items must be sealed with compatible, durable caulking, foam, gasketing, or other materials.
- (1) Category 2 buildings must be sealed around window and door frames, between wall cavities and window or door frames, and at utility penetrations.
 - (2) Category 1 buildings must be sealed as required in subitem (1), and in addition, between wall assemblies and their rim joists, sill plates, foundations; between wall and roof/ceilings; and between separate wall panels.
- C. **Performance alternative.** As an alternative to the prescriptive requirements of item B, detached single-family residential buildings must meet the requirements of this item.
- (1) The air leakage rate must be 0.24 cubic feet per minute per square foot of conditioned space or less at 50 pascals when tested in accordance with ASTM 779-87; and
 - (2) A residential mechanical ventilation system must be installed, and the ventilation rate must be verified by measurement.

Subp. 8. **Slab on grade floors.** Slab on grade floors must be insulated around the perimeter of the floor. The thermal insulation must be continuous and must be not less than R-10. The insulation must extend from the top of the slab downward to either the design frost line or to the bottom of the slab then horizontally beneath the slab for a total distance equal to the design frost line.

Subp. 9. **Foundation walls.**

- A. Foundation walls enclosing conditioned spaces must be insulated.
- B. The thermal resistance of the insulation on the opaque foundation wall must be not less than required in this item from the top of the wall down to the top of the footing.
- (1) For residential buildings three stories and less, insulation must be R-10 minimum.