

GAS FIREPLACE VENT DUCT AIR BARRIER PENETRATION

ONTARIO BUILDING CODE

9.25.3.3 Continuity of the Air Barrier System

- (9) Penetrations of the air barrier system, such as those created by the installation of electrical wiring, electrical boxes, piping or ductwork, shall be sealed with compatible material such as tape or caulking to maintain the integrity of the air barrier system over the entire surface.
- (10) Penetrations of the air barrier system, such as those created by the installation of doors, windows and other fenestration shall be sealed to maintain the integrity of the air barrier system over the entire surface.
- (14) Clearances between chimneys or gas vents and the surrounding construction that would permit air leakage from within the building into a wall or attic or roof space shall be sealed by noncombustible material to prevent such leakage and shall be sealed to the air barrier with tape or another compatible material, and to the vent with high temperature caulking in accordance with the manufacturer's installation instructions.

OBJECTIVE

Gas fireplaces are dramatically replacing masonry fireplaces in new home construction. Gas fireplaces are usually enclosed in a space that projects outside the building. The venting duct that penetrates the air/vapour barrier is part of the wall assembly and must be sealed. Gypsum board must cover the entire surface of the wall and ceiling inside this enclosure. The gypsum board will protect the wall insulation and the polyethylene sheet from possible damage due to heat build-up. The gypsum board will also clamp the joints in the air barrier system and provide structural stability for the walls.

The illustration to the right shows a common method of building this critical area. To ensure the integrity of the air barrier is maintained, it is extremely important to insulate, install the air/vapour barrier and gypsum board prior to installing the fireplace and false framing.

