



Air Barrier & Recessed Light Fixtures

The Building Standards Department issues Builder Tips as part of our customer service program. They are designed to provide an improved understanding of the Building Code and to reduce the costs associated with correcting infractions. Please contact your area building inspector for further information or call the Building Standards Department at 905.475.4848 extension 2189

9.25.3.2. Air Barrier System Properties (See Note A-9.25.5.1.(1))

(1) Sheet and panel type materials intended to provide the principal resistance to air leakage shall have an air leakage characteristic not greater than $0.02 \text{ L}/(\text{s}\cdot\text{m}^2)$ measured at an air pressure differential of 75 Pa.

(2) Where polyethylene sheet is used to provide the air-tightness in the air barrier system, it shall conform to CAN/CGSB-51.34-M, "Vapour Barrier, Polyethylene Sheet for use in Building Construction".

9.25.3.3. Continuity of the Air Barrier System

(6) Penetration of 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.

OBJECTIVE

Penetrations caused by recessed light fixtures, commonly referred to as 'pot lights', of the attic air/vapour barrier in a dwelling represents a potential source of air leakage. Air leakage into a roof attic or air space above an insulated ceiling can result in serious condensation problems. In recent years, manufacturers have developed a variety of specialty products designed to make air sealing around pot lights easier and more effective. A rigid polyethylene surround is one product that is widely available and can be installed following these steps;

- Pot lights that are approved for use in insulated ceilings are inserted into the air/vapour barrier surrounds.
- The pot light is fastened to the framing of the building.
- The main attic air/vapour barrier is sealed to the flange on the surround.

The melting point of the polyethylene surround must be compatible with the type of pot light being used. The illustration below depicts a typical installation.

