

# Envelope

## GENERAL



### Mandatory Sealing

All joints, penetrations and other openings in the building envelope that are potential sources of air leakage shall be caulked, gasketed, weather stripped, or otherwise sealed to limit air infiltration and exfiltration.

This includes gaps between register boots and surrounding material (drywall, subfloor, etc.), around plumbing penetrations and electrical penetrations, between the floor (slab) and bottom plate and between the sheetrock and the top plate.

**Code Reference:** 2016 Title 24, Part 6 Standards §110.7



### Quality Installation of Insulation (QII)

There is a special compliance credit available for installing insulation to a much higher than standard level of quality. This will be indicated on the CF-1R. When taken, many of the best practices described in this document become mandatory. These will all be independently verified by a HERS rater and documented on CF-3R forms.



### Recessed Can Lights

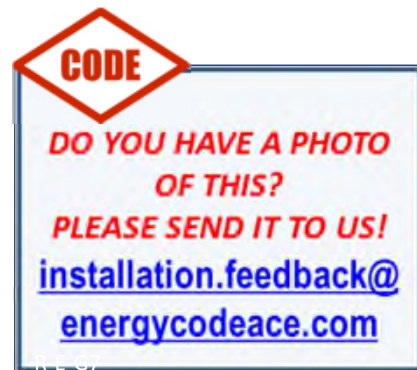
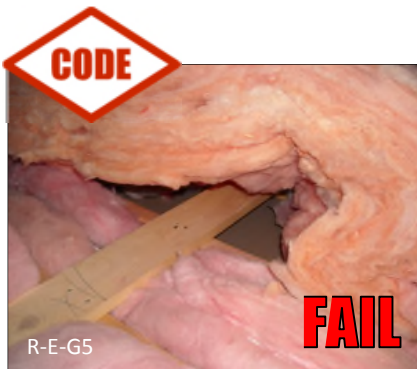
Luminaires recessed into ceilings (“can lights”) shall meet all of the following requirements:

- Be listed for zero clearance insulation contact (IC) by Underwriters Laboratories or other nationally recognized testing/rating laboratory; and
- Have a label that certifies that the luminaire is airtight (AT). (Exhaust fan-light housings shall not be required to be certified airtight.)
- Be sealed with a gasket or caulk between the luminaire housing and ceiling.

**Code Reference:** 2016 Title 24, Part 6 Standards §150.0(k)1.C

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### Insulation Products - Certification

Any thermal insulation product shall be certified by Department of Consumer Affairs, Bureau of Home Furnishing and Thermal Insulation that the insulation's conductive thermal performance is approved. Refer to the CF-2R-ENV-XXX for product name and certification by the installer.

**Code Reference:** 2016 Title 24, Part 6 Standards §110.8(a)

### Ceiling Insulation in Contact with Air Barrier

Insulation installed to limit heat loss and gain through the top of conditioned spaces shall be installed in direct contact with a continuous roof or ceiling air barrier. (Insulation shall not be placed on top of a suspended ceiling with removable ceiling panels (T-bar ceilings) .

**Code Reference:** 2016 Title 24, Part 6 Standards §110.8(e)

### Wall Insulation in Contact with Air Barrier

Insulation installed to limit heat loss and gain through walls should be in direct contact with an air barrier on both sides of the insulation and all around the edges. This prevent s thermal loops within the wall cavity.

**Code Reference:** 2016 Title 24, Reference Appendices RA3.5

### Roofing Products Are Part of the Envelope

A roofing product's thermal emittance and aged solar reflectance shall be certified and labeled or shall use default value:

A. For asphalt shingles: 0.08/0.75

B. For all other roofing products: 0.10/0.75. Check the CF-1R for required values to be installed.

**Code Reference:** 2016 Title 24, Part 6 Standards §110.8(i)