Recessed Lights

This pamphlet is one in a series that describes residential energy conservation requirements of the Oregon Residential Specialty Code and Structural Specialty Code. Other pamphlets in this series may be downloaded from Oregon Department of Energy web site at http://egov.oregon.gov/ENERGY/CONS/Codes/cdpub.shtml or local building departments or from Oregon Building Codes Division.

The Oregon residential code does not allow installation of recessed lights in cavities intended to be insulated – insulated ceilings, for example. The restriction avoids a potential fire hazard: covering a recessed light fixture with insulation.

Recessed lighting fixtures must also be airtight. This can be accomplished by one of the following:

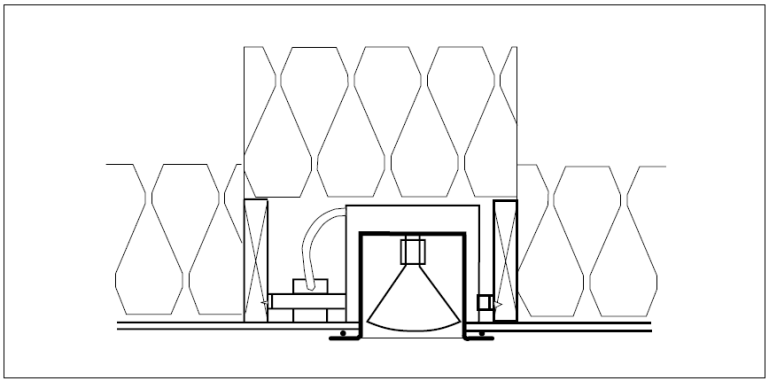
- Type IC rated, manufactured with no penetrations between the inside of the recessed fixture and ceiling cavity, and the annular space between the ceiling cutout and lighting fixture shall be sealed.
- Type IC rated in accordance with ASTM E283 with no more than 2.0 cfm air movement from the conditioned space to the ceiling cavity, at 1.57 psi pressure (75 Pa) difference, shall be labeled, and the annular space between the ceiling cutout and lighting fixture shall be sealed.
- Type IC rated installed inside a sealed box constructed from a minimum 0.5-inch-thick gypsum wallboard or constructed from a preformed polymeric vapor barrier, or other airtight assembly manufactured for this purpose.

Recessed lights act as chimneys for heat loss and moisture transfer into attic and rafter spaces. Thus the requirement also has energy and moisture control benefits.

Look closely at product literature for the IC rating. The IC rating is also stamped on the fixture. If you do not see "IC" and the fixture has not been tested as "air-tight," the fixture cannot be installed in spaces that are intended to be insulated.

Existing recessed lights that are not IC-rated may be found when ceiling insulation levels are increased as part of a remodel. In these situations, a non-combustible baffle must be used to keep insulation back and maintain a three-inch fire clearance around the fixture. The top of the fixture should either not be covered or maintain a 24-inch clearance above the top fixture. Code does not require replacement of existing non-IC rated lights in existing buildings.

Figure 1:
IC-Rated recessed light



Information presented in this publication supports the Oregon Residential Specialty Code. This publication does not include all code requirements. Refer to the code and check with your code official for additional requirements. If information in this publication conflicts with code or your local officials, follow requirements of code and your local officials.

For more information about the residential energy code, call the Building Codes Division at (503) 378-4133 or the Oregon Dept of Energy (503) 378-4040 in Salem or toll-free, 1-800-221-8035.

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