

## UNVENTED ATTIC ASSEMBLIES

**R806.5 Unvented attic assemblies.** Unvented attics and unvented enclosed roof framing assemblies created by ceilings that are applied directly to the underside of the roof framing members and structural roof sheathing applied directly to the top of the roof framing members/rafters, shall be permitted where all of the following conditions are met.:

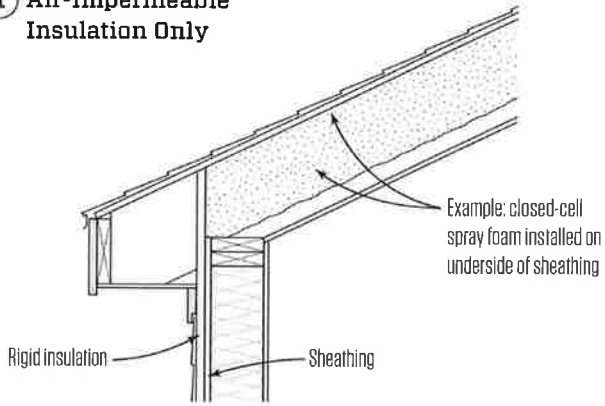
1. The unvented attic space is completely within the building thermal envelope.
2. Interior Class I vapor retarders are not installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed roof framing assembly.
3. Where wood shingles or shakes are used, a minimum ¼" vented airspace separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. Any air-impermeable insulation shall be a Class II vapor retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.
5. Insulation shall comply with Item 5.3 and either Item 5.1:
  - 5.1 Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.
    - 5.1.1 Where only air-impermeable insulation is provided, it shall be applied in direct contact with the underside of the structural roof sheathing.
    - 5.1.2 Where air-permeable insulation is installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing in accordance with R-20 for condensation control.
    - 5.1.3 Where both air-impermeable and air-permeable insulation are provided, the air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing in accordance with Item 5.1.1 and shall be R-20 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.
    - 5.1.4 Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45 degrees F. For calculation purposes, an interior temperature of 68 degrees F is assumed and the exterior air temperature is assumed to be monthly average outside air temperature of the three coldest months.
  - 5.3 Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

**\*\*Some asphalt shingle manufacturer's have limited warranties for unvented, conditioned attic assemblies. We strongly recommend verification with the manufacturer of your shingles prior to proceeding when choosing this type of roof assembly. \*\***

The following details have been provided to clarify the requirements as listed above. In order to be approved by the inspector, all of the conditions as listed above will need to be verified in writing. I.e: manufacturer's instructions for the insulation, the product listing showing compliance with this code, and a statement of acknowledgement received regarding manufacturer's warranties.

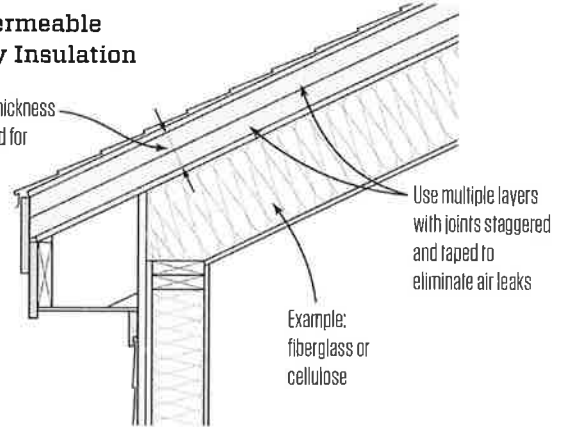
# UNVENTED ATTIC ASSEMBLIES-CONTINUED

## 1 Air-Impermeable Insulation Only

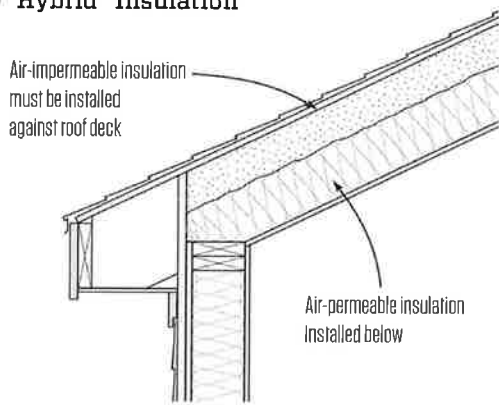


## 2 Air-Permeable Cavity Insulation

Table R806.5 provides thickness of rigid insulation needed for condensation control



## 3 "Hybrid" Insulation



## 4 "Perfect Roof"

