

2018 IECC Attic Eave Baffles

Requirement:

Section R402.2 Specific insulation requirements (Prescriptive).

- In addition to the requirements of Section R402.1, insulation shall meet the specific requirements of Sections R402.2.1 through R402.2.13.

Section R402.2.1 Ceilings with attic spaces.

- Where Section R402.1.2 requires R-38 insulation in the ceiling, installing R-30 over 100 percent of the ceiling area requiring insulation shall satisfy the requirement for R-38 **wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves**. Where Section R402.1.2 requires R-49 insulation in the ceiling, installing R-38 over 100 percent of the ceiling area requiring insulation shall satisfy the requirement for R-49 insulation **wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves**. This reduction shall not apply to the U-factor alternative approach in Section R402.1.4 and the Total UA alternative in Section R402.1.

Section R402.2.3 Eave Baffles

- For air-permeable insulations in vented attics, a baffle shall be installed adjacent to soffit and eave vents. Baffles shall maintain an opening equal or greater than the size of the vent. The baffle shall extend over the top of the attic insulation. The baffle shall be permitted to be any solid material.

Translated:

- Code sections R402.2.1 through R402.2.13 are requirements that have been written in the Prescriptive section of the code. This does not mean that if you choose a performance compliance option that you do not also have to abide by the requirements in sections R402.2.1 through R402.2.13.
- The easiest way to evaluate these sections of code it by looking at installation vs. R-value requirements.
 - R-value requirements are only applicable to prescriptive compliance options because performance compliance options can trade off R-values and U-values.
 - Tradeoffs are a software analysis that allows one to install less R-value or U-value in one location if more is installed in another location in order to maintain a balanced energy equation.
 - Installation requirements are required (mandatory) regardless of the compliance option or path that is chosen. See section R402.2.1 above. The language in blue above is a mandatory requirement. (**full height of uncompressed ... insulation extends over the wall top plate at the eaves**) The remain language describes the installation of R-value that can be traded. If a builder wants to put in less R-value they would have to use the prescriptive UA alternative, or sections R405, or R406 to demonstrate an allowable trade off.
- Attic Eave Baffles are the best example of an installation requirement that is required regardless of the compliance option or path that is chosen. It does not matter if you are complying by using sections R405 or R406, attic eave baffles are required to be installed in all ventilated attic locations that use soffit ventilation. There is no R-value or U-value component of the requirement that can be traded. The 2021 IECC makes this clearer by removing the word Mandatory in the code and replacing it with the work requirement. This better ensures that all requirements are applicable to all compliance or path options.

Example Execution of Requirement:

