

Roofing No. 3018

Subject: Determining Minimum R-value on Tapered Insulation Systems

Date: April 2017 (Revised January 2019)

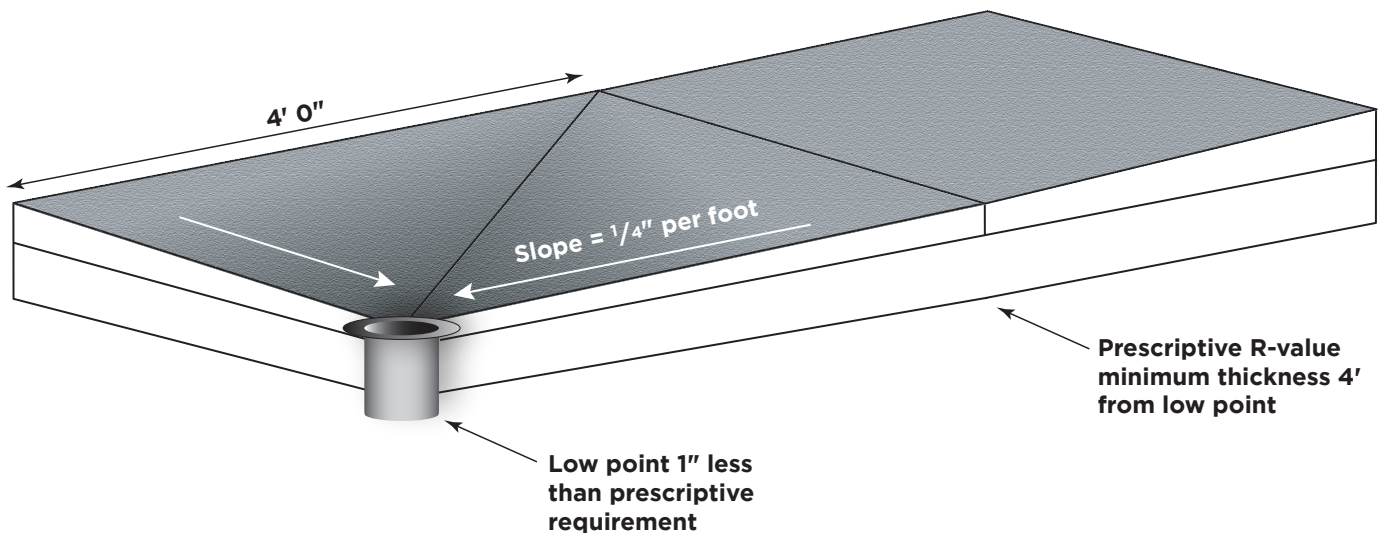
The 2015 International Energy Conservation Code (IECC) has R-value requirements for continuous commercial insulation installed entirely above roof decks based on climate zone. These requirements from IECC Table C402.1.3 are shown below.:

Climate Zone	1	2	3	4 Except Marine	5 And Marine 4	6	7	8
Minimum R-value of Insulation Entirely Above Deck	R-20ci ¹	R-25ci	R-25ci	R-30ci	R-30ci	R-30ci	R-35ci	R-35ci

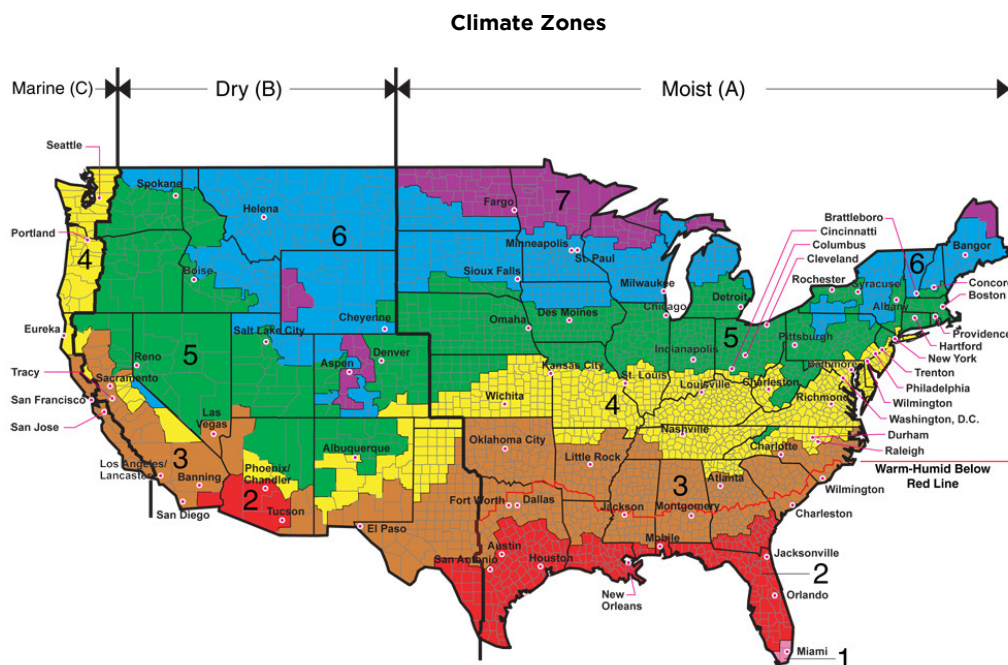
¹ Group R requirement is R-25ci

R-value on tapered insulation systems.

The R-values in the table are the minimum required. However, in roofs that include tapered insulation there is an exception that allows the tapered insulation to vary 1 inch from the minimum required. On a roof with a typical 1/4" per foot taper this results in insulation at drain locations being 1 in. thinner than the required minimum IECC thickness. However, the R-value of the roof overall is generally much higher than the minimum requirement as the insulation continues to increase in thickness farther from drain locations.



The table included with this bulletin provides the minimum prescriptive insulation requirements of IECC-2015. Alternative paths for conformance through detailed analysis are also available within the standard. Insulation requirements vary according to Climate Zone.



All of Alaska in Zone 7 except for the following Boroughs in Zone 8: Bethel, Dellingham, Fairbanks, N. Star, Nome North Slope, Northwest Arctic, Southeast Fairbanks, Wade Hampton, and Yukon-Koyukuk

Zone 1 includes: Hawaii, Guam, Puerto Rico, and the Virgin Islands



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