

# Building Envelope Insulation R-Value Compliance Requirements by Climate Zone

## Slab-On Grade Floor Insulation Requirements

Climate Zone*	1		2		3		4 Except Marine		5 And Marine 4		6		7		8	
	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R
<b>Unheated slabs</b>	NR	NR	NR	NR	NR	NR	R-10 for 24" below	R-10 for 24" below	R-10 for 24" below	R-10 for 24" below	R-10 for 24" below	R-15 for 24" below	R-15 for 24" below	R-15 for 24" below	R-15 for 24" below	R-20 for 24" below
<b>Heated slabs</b>	R-7.5 for 12" below	R-7.5 for 12" below	R-7.5 for 12" below	R-7.5 for 12" below	R-10 for 24" below	R-10 for 24" below	R-15 for 24" below	R-15 for 24" below	R-15 for 36" below	R-15 for 36" below	R-15 for 48" below	R-20 for 48" below	R-20 for 48" below	R-20 for 48" below	R-20 for 48" below	R-20 for 48" below

## Walls Below Grade Insulation Requirements

Climate Zone*	1		2		3		4 Except Marine		5 And Marine 4		6		7		8	
	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R
<b>Below Grade Wall</b>	NR	NR	NR	NR	NR	NR	NR	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-10 ci	R-10 ci	R-10 ci	R-12.5 ci

## Walls Above Grade Insulation Requirements

Climate Zone	1		2		3		4 Except Marine		5 And Marine 4		6		7		8	
	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R
<b>Mass</b>	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-9.5 ci	R-9.5 ci	R-11.4 ci	R-11.4 ci	R-13.3 ci	R-13.3 ci	R-15.2 ci	R-15.2 ci	R-15.2 ci	R-25 ci	R-25 ci
<b>Metal Building</b>	R-13 + R-6.5 ci	R-13 + R-6.5 ci	R-13 + R-6.5 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-13 ci	R-13 + R-19.5 ci	R-13 + R-13 ci	R-13 + R-19.5 ci
<b>Metal Framed</b>	R-13 + R-5 ci	R-13 + R-5 ci	R-13 + R-5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-15.6 ci	R-13 + R-7.5 ci	R-13 + R-17.5 ci
<b>Wood Framed &amp; Other</b>	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-3.8 ci OR R-20	R-13 + R-7.5 ci OR R-20 + R-3.8 ci	R-13 + R-7.5 ci OR R-20 + R-3.8 ci	R-13 + R-7.5 ci OR R-20 + R-3.8 ci	R-13 + R-7.5 ci OR R-20 + R-3.8 ci	R-13 + R-7.5 ci OR R-20 + R-3.8 ci	R-13 + R-7.5 ci OR R-20 + R-10 ci	R-13 + R-15.6 ci OR R-20 + R-10 ci

## Roof Insulation Requirements

Climate Zone	1		2		3		4 Except Marine		5 And Marine 4		6		7		8	
	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R	All Other	Group R
<b>Insulation entirely above deck</b>	R-20 ci	R-20 ci	R-20 ci	R-20 ci	R-20 ci	R-20 ci	R-25 ci	R-25 ci	R-25 ci	R-25 ci	R-20 ci	R-30 ci	R-35 ci	R-35 ci	R-35 ci	R-35 ci
<b>Metal buildings (with R-5 thermal blocks)</b>	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R-11 LS	R-25 + R-11 LS	R-25 + R-11 LS	R-30 + R-11 LS	R-30 + R-11 LS	R-30 + R-11 LS	R-30 + R-11 LS
<b>Attic and Other</b>	R-38	R-38	R-38	R-38	R-38	R-38	R-38	R-38	R-38	R-49	R-49	R-49	R-49	R-49	R-49	R-49

Data compiled by U.S. Department of Energy @ [www.energycodes.gov](http://www.energycodes.gov) BECU [Building Energy Code Univeristy] for clarification on IECC 2015 Code Requirements

\* Group R within each Climate Zone = Buildings with residential occupancies, Hotels, Motels, or Boarding Houses