

We protect what matters most™

**To:** Commercial Customer Care, Field Services, Design Services, Commercial Marketing  
**From:** Codes and Regulatory Compliance  
**Date:** 8/30/2024  
**Subject:** Minimum Insulation R-value Requirements by State

This TechNote references the International Energy Conservation Code (IECC) and ASHRAE Standard 90.1, "Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings" requirements applicable to Non-Residential Buildings, Above Roof Deck, New Construction, Re-Roofing: Recover and Replacement\*

State		Applicable Code	Climate Zone	Minimum R-Value	Effective Date
<a href="#">Alabama</a>	State Mandated	2015 Alabama Commercial Energy Code (2015 IECC)	2	R-25	6/1/2016
			3	R-25	
<a href="#">Alaska</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	7	R-35	
			8	R-35	
<a href="#">Arizona</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	2	R-25	
			3	R-25	
			4	R-30	
			5	R-30	
<a href="#">Arkansas</a>	State Mandated	2014 Arkansas Energy Code (2009 IECC)	3	R-20	1/1/2015
			4	R-20	
<a href="#">California</a> <sup>1</sup>	State Mandated	California 2022 Energy Code	<a href="#">CA's CZ</a>	R-17 or R-23	1/1/2023
<a href="#">Colorado</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	4	R-30	
			5	R-30	
			6	R-30	
			7	R-35	
<a href="#">Connecticut</a>	State Mandated	2022 CT State Building Code (2021 IECC)	5	R-30	10/1/2022
<a href="#">Delaware</a>	State Mandated	Regulations for State Energy Conservation Code (2018 IECC)	4	R-30	12/11/2020
<a href="#">District of Columbia</a>	District Mandated	District of Columbia Energy Conservation Code (2017) (ASHRAE 90.1-2013)	4	R-33	5/9/2020
<a href="#">Florida</a>	State Mandated	2023 8 <sup>th</sup> Edition Florida Building Code (2021 IECC)	1	R-20	12/31/2023
			2	R-25	
<a href="#">Georgia</a>	State Mandated	2020 Georgia State Minimum Standard Energy Code (2015 IECC)	2	R-25	1/1/2020
			3	R-25	
			4	R-30	
<a href="#">Hawaii</a>	State Mandated	2018 IECC	1	R-20	12/15/2022
<a href="#">Idaho</a>	State Mandated	(2020) Idaho Energy Conservation Code (2018 IECC)	5	R-30	1/1/2021
			6	R-30	
<a href="#">Illinois</a>	State Mandated	2021 Illinois Energy Conservation Code (2021 IECC)	4	R-30	1/1/2024
			5	R-30	

<sup>1</sup> California has its own climate zones and can be found [here](#). R-17 is required in CZ's 6-8; while R-23 is required in CZ's 1-5 and 9-16 (continuous insulation only). Refer to [PIMA document](#) for additional information for utilizing continuous and cavity insulation.

\*This document is for educational purposes only and is meant as a quick reference guide for insulation levels across the USA. Information generated from: PIMA, US Department of Energy and state websites, which are periodically updated. It is not intended as a substitute for professional design advice. Always verify actual insulation levels required for a specific project with the local Authority Having Jurisdiction (AHJ) before beginning construction. GAF is not responsible for any errors or omissions.

State		Applicable Code	Climate Zone	Minimum R-Value	Effective Date
<a href="#">Indiana</a>	State Mandated	2010 Indiana Energy Conservation Code (ASHRAE 90.1-2007)	4	R-20	5/6/2010
			5	R-20	
<a href="#">Iowa</a>	State Mandated	2012 IECC	5	R-25	4/1/2014
			6	R-30	
<a href="#">Kansas</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	4	R-30	
			5	R-30	
<a href="#">Kentucky</a>	State Mandated	2013 Kentucky Building Code (2012 IECC)	4	R-25	6/22/2016
<a href="#">Louisiana</a> <sup>2</sup>	State Mandated	Louisiana State Uniform Construction Code (2021 IECC)	2	R-25	7/1/2023
<a href="#">Maine</a>	State Mandated	Maine Uniform Building Code (2015 IECC)	6	R-30	7/1/2021
			7	R-35	
<a href="#">Maryland</a>	State Mandated	Maryland Building Performance Standards (2021 IECC)	4	R-30	5/29/2023
			5	R-30	
<a href="#">Massachusetts</a>	State Mandated	9th Edition of Massachusetts State Building Code 780 (2018 IECC)	5	R-30	8/7/2020
<a href="#">Michigan</a>	State Mandated	Commercial Michigan Energy Code (ASHRAE 90.1-2013)	5	R-30	9/20/2017
			6	R-30	
			7	R-35	
<a href="#">Minnesota</a>	State Mandated	2024 Minnesota Commercial Energy Code (ASHRAE 90.1-2019)	6	R-30	1/5/2024
			7	R-35	
<a href="#">Mississippi</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	2	R-25	
			3	R-25	
<a href="#">Missouri</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	4	R-30	
			5	R-30	
<a href="#">Montana</a>	State Mandated	2021 IECC	6	R-30	6/11/2022
<a href="#">Nebraska</a>	State Mandated	Nebraska Energy Code (2018 IECC)	5	R-30	7/11/2020
<a href="#">Nevada</a>	State Mandated	2021 IECC	3	R-25	7/28/2021
			4	R-30	
			5	R-30	
<a href="#">New Hampshire</a>	State Mandated	New Hampshire State Building Code (2018 IECC)	5	R-30	1/1/2023
			6	R-30	
<a href="#">New Jersey</a>	State Mandated	Uniform Construction Code - Energy Subcode (ASHRAE 90.1-2019)	4	R-30	9/6/2022
			5	R-30	
<a href="#">New Mexico</a>	State Mandated	2021 New Mexico Commercial Energy Code (2021 IECC)	3	R-25	7/30/2024
			4	R-30	
			5	R-30	
<a href="#">New York</a>	State Mandated	2020 Energy Conservation Construction Code of New York State (2018 IECC)	4	R-30	5/12/2020
			5	R-30	
			6	R-30	

<sup>2</sup> Louisiana has a state amendment that assigns climate zone 2 to the entire state.

*\*This document is for educational purposes only and is meant as a quick reference guide for insulation levels across the USA. Information generated from: PIMA, US Department of Energy and state websites, which are periodically updated. It is not intended as a substitute for professional design advice. Always verify actual insulation levels required for a specific project with the local Authority Having Jurisdiction (AHJ) before beginning construction. GAF is not responsible for any errors or omissions.*

08302024

State		Applicable Code	Climate Zone	Minimum R-Value	Effective Date
<a href="#">North Carolina</a>	State Mandated	2018 North Carolina State Building Code: Energy Conservation Code (2015 IECC)	3	R-25	1/1/2019
			4	R-30	
			5	R-30	
<a href="#">North Dakota</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	6	R-30	
			7	R-35	
<a href="#">Ohio</a>	State Mandated	2024 Ohio Building Code Chapter 13 (2021 IECC)	4	R-30	3/1/2024
			5	R-30	
<a href="#">Oklahoma</a>	State Mandated	Oklahoma Uniform Building Code (2006 IECC)	3	R-15	7/15/2011
			4	R-15	
<a href="#">Oregon</a>	State Mandated	2024 Oregon Energy Efficiency Specialty Code (ASHRAE 90.1-2019)	4	R-30	10/1/2024
			5	R-30	
<a href="#">Pennsylvania</a>	State Mandated	2018 IECC	4	R-30	2/14/2022
			5	R-30	
			6	R-30	
<a href="#">Rhode Island</a>	State Mandated	RISBC-8 State of Rhode Island Energy Conservation Code (2018 IECC)	5	R-30	2/1/2022
<a href="#">South Carolina</a>	State Mandated	2009 South Carolina Energy Standard (2009 IECC)	3	R-20	1/1/2013
<a href="#">South Dakota</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	5	R-30	
			6	R-30	
<a href="#">Tennessee</a>	State Mandated	2012 IECC	3	R-20	8/4/2016
			4	R-25	
<a href="#">Texas</a>	State Mandated	2015 IECC	2	R-25	11/1/2016
			3	R-25	
			4	R-30	
<a href="#">Utah</a>	State Mandated	Commercial Energy Conservation Code 2021 of Utah (2021 IECC)	3	R-25	7/1/2023
			5	R-30	
			6	R-30	
<a href="#">Vermont</a>	State Mandated	2024 Commercial Building Energy Standards (2021 IECC)	6	R-45	7/1/2024
<a href="#">Virginia</a>	State Mandated	2021 Virginia Energy Conservation Code (and 2021 Virginia Existing Building Code) (2021 IECC)	3	R-25	1/18/2024
			4	R-30	
<a href="#">Washington</a> <sup>3</sup>	State Mandated	2021 Washington State Energy Code (2021 IECC)	4	R-38	3/15/2024
			5	R-38	
<a href="#">West Virginia</a>	State Mandated	West Virginia State Building Code (ASHRAE 90.1-2013)	4	R-30	8/1/2022
			5	R-30	
<a href="#">Wisconsin</a>	State Mandated	2015 Wisconsin Commercial Building Code (2015 IECC)	6	R-20	5/1/2018
			7	R-25	
<a href="#">Wyoming</a>	Local Jurisdiction	No State-Wide Energy Code; Refer to local jurisdiction	5	R-30	
			6	R-30	
			7	R-35	

<sup>3</sup> Washington has a state amendment that assigns climate zones 4 and 5 to the state.

*\*This document is for educational purposes only and is meant as a quick reference guide for insulation levels across the USA. Information generated from: PIMA, US Department of Energy and state websites, which are periodically updated. It is not intended as a substitute for professional design advice. Always verify actual insulation levels required for a specific project with the local Authority Having Jurisdiction (AHJ) before beginning construction. GAF is not responsible for any errors or omissions.*