

WHAT'S NEW IN THE CODE?

As of January 1, 2023, Title 24 will mandate new and updated energy efficiency regulations for residential construction in the State of California, including changes to lighting, mechanical ventilation systems, wall and attic insulation, and approaches to overall energy efficiency.

KEY HIGHLIGHTS

- 2022 Title 24 compliance is now based on meeting a combination of energy budgets based on Time Dependent Valuation (\$) and Source Energy.
- The mandatory minimum insulation in 2x6 framed walls is R-20.
- Quality Insulation Installation (QII) is still required for all multi-family buildings of three stories or less. QII is not required for multi-family buildings over three stories. Include QII in the contractor scope, as a HERS Rater will be inspecting the work.

CODE REQUIREMENTS: HIGH PERFORMANCE ATTICS

Prescriptive Attic Options

		Climate Zone	Radiant Barrier	R-30 at Ceiling* (Attic Floor)	R-38 at Ceiling* (Attic Floor)	Fiberglass Below Roof Deck Between Rafters*
Air Handler & Ducts in the Attic	Option B	1			•	
		2	•		•	
		3, 5-7	•	•		
		10			•	R-13
		4, 8, 9, 11-16			•	R-19
Air Handler & Ducts in Conditioned Space	Option C	1, 16		•	•	
		2-10	•	•		
		11-15	•		•	
			Roof/Attic Max U-factor	Prescriptive Solution		
Metal Building	Option D (Non Attic Roof)	All CZ's		U-0.041	Standing Seam Metal w/ R-20 insulation	
Wood Framed and Other U-factor		1, 2, 4, 8-16		U-0.028	2x12 @ 24" o.c., R-38 in cavity	
		3, 5-6		U-0.034	2x12 @ 24" o.c., R-30 in cavity	
		7		U-0.039	2x10 @ 24" o.c., R-26 in cavity	

* Option A (insulation above the roof deck) is available through the Performance Attic Options below

** If fiberglass batts installed in attics are thicker than the surrounding framing, use full width.

Performance Attic Options

Any attic insulation not listed under "Prescriptive" must use Performance options (e.g., unvented attics, or attics with foam board above the roof deck).

Air Handler & Ducts in Attic (vented or unvented)	Compliance must be demonstrated via energy modeling with CBECC-RES software.	Mandatory minimum R-22 attic insulation
	Unvented attics must be air-sealed at roof deck, eaves, gables and penetrations. Gables to be insulated as exterior walls.	

JM's broad portfolio of quality insulation products for use in High Performance Attics & Walls includes:



Fiberglass



Spray Foam



Blow-In



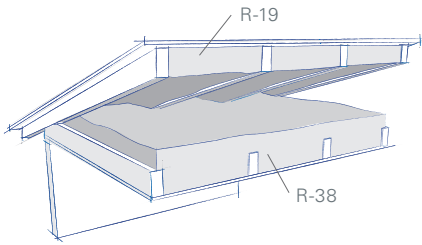
Mineral Wool



Polyiso Sheathing

With the broadest product offering in the insulation industry and more than 160 years of experience, Johns Manville is your expert building partner. Our building science knowledge and network of skilled contractors can help you meet or exceed new Title 24 requirements, providing more comfortable and energy efficient homes.

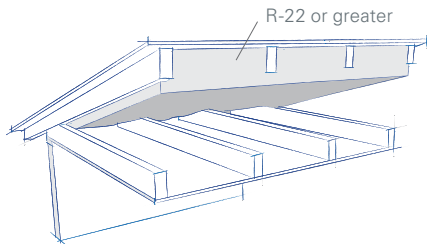
JM SOLUTIONS: HIGH PERFORMANCE ATTICS



Prescriptive Path – Vented Attic

Option B (Zones 4, 8-16)

R-19 or R-13 JM Formaldehyde-Free™ Fiberglass Batts installed below roof deck at rafters **-and-** R-30 or R-38 JM Climate Pro® Blow-in installed at ceiling (attic floor)



Performance Path – Unvented Attic

R-30+ JM Formaldehyde-Free™ Fiberglass Batts - **or** R-22+ JM Corbond® Spray Foam (SPF) (insulates and airseals in one step) installed only at the underside of the roof deck

Note: Greater insulation values may allow for savings due to tradeoffs elsewhere in the design

Benefits of Unvented Attics:

- Reduced air leakage rates throughout the attic
- Reduced energy loss from leaky ductwork
- Extended life and reduced size of HVAC system

JM SOLUTIONS: HIGH PERFORMANCE WALLS

Wall Framing	Cavity Insulation	JM Continuous Insulation	U-factor
2x4 Wood, 16" o.c.	R-15 JM Fiberglass or Mineral Wool	1" CladStone (R-4.3)	0.063
	R-15 JM Fiberglass -or- JM MinWool -or- JM ClimatePro BIBs	0.75" JM AP Foil (R-5)	0.060
	3.1" JM Corbond IV cc SPF (R-21)	0.625" JM AP Foil (R-3.5)	0.051
	R-13 JM Fiberglass -or- JM Corbond oc SPF	1.5" JM AP Foil (R-9.3)	0.049
2x6 Wood, 16" o.c.	1.5" JM Corbond IV cc SPF + JM Spidr Plus	none	0.062
	R-21 JM Fiberglass -or- R-20 JM Corbond III oc SPF	0.75" JM AP Foil (R-5)	0.048
	R-23 MinWool Temp Control	1" CladStone (R-4.3)	0.048
3.625" Steel, 16" o.c.	R-15 MinWool Temp Control	2" CladStone (R-8.6)	0.060
	R-20 JM Corbond IV oc SPF	1.65" JM AP Foil (R-10)	0.051
6" Steel, 16" o.c.	R-19 JM Fiberglass	1" JM AP Foil (R-6)	0.064
	R-19 JM Fiberglass	2" CladStone (R-8.6)	0.055
	R-23 MinWool Temp Control	2" CladStone (R-8.6)	0.052
	R-21 JM Fiberglass	1.5" JM AP Foil (R-9.3)	0.051

CODE REQUIREMENTS: HIGH PERFORMANCE WALLS

	CA Climate Zone(s)	U-factor [†]
Framed (wood or metal) > 1 hr. fire rating	6-7	0.065
	1-5, 8-10, 12-13	0.059
	11, 14-16	0.051
Framed (wood or metal) ≤ 1 hr. fire rating	6-7	0.065
	1-5, 8-16	0.051

[†] U-factor = 1/R-value. U-factor for a wall includes the effects of framing, sheathing, cavity insulation, continuous insulation and interior & exterior finishes. Title 24 U-factor is calculated per Joint Appendix JA4.

For additional solutions or more information, contact your local JM rep, call the Product Information Center at 800-654-3103 or visit www.JM.com.