

WHAT'S NEW IN THE CODE?

As of January 1, 2017, Title 24 will mandate new energy efficiency regulations for residential construction in the state of California, including LED lighting, reduced air leakage, tankless water heaters and increased R-value requirements for duct work in attics. A significant change in the regulations will be to require High Performance Attics and Walls in all homes.

CODE REQUIREMENTS: HIGH PERFORMANCE ATTICS

Prescriptive Path – Vented Attic

		Climate Zone	R-8 Duct Insulation with <5% Leakage	Radiant Barrier	R-30 at Ceiling (Attic Floor)	R-38 at Ceiling (Attic Floor)	Continuous Roof Deck Insulation*	Below Roof Deck Insulation at Rafters**
Air Handler and Ducts are in the Attic	OPTION A	1, 16	•			•		
		2	•	•		•		
		3, 5-7	•	•	•			
		4, 8-15	•	•		•	•	
	OPTION B	4, 8-15	•			•		•
Air Handler and Ducts are in Alternate Conditioned Space	OPTION C	1, 16				•		
		2-10		•	•			
		11-15		•		•		

*R-6 if under tile with furring, R-8 if under shingles
**R-13 if under tile with furring, R-18 if under shingles

Performance Path – Unvented Attic

Air Handler & Ducts in Unvented Attic	Attic must be air-sealed to exterior	Minimum R-22 below roof deck insulation at rafters
	Compliance must be demonstrated via energy modeling	

CODE REQUIREMENTS: HIGH PERFORMANCE WALLS

Climate Zones 1-5 and 8-16	Wall assemblies must not exceed a maximum U-factor of 0.051
Climate Zones 6 and 7	Wall assemblies must not exceed a maximum U-factor of 0.065

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



Fiberglass



Spray Foam



Blow-In



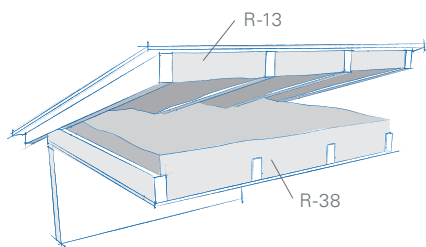
Mineral Wool



Polyiso Sheathing

With the broadest product offering in the insulation industry and almost 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.

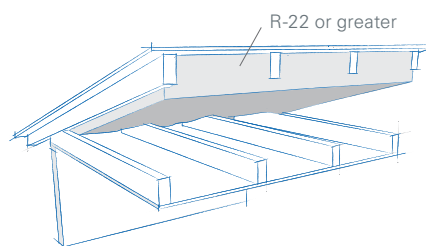
JM SOLUTIONS: HIGH PERFORMANCE ATTICS



Prescriptive Path – Vented Attic

Option B (Zones 4, 8-15)

R-13 JM Formaldehyde-Free™ Fiberglass Batts installed below roof deck at rafters **-and-**
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 III® or JM Corbond® Open-cell
SPF (insulates and air-seals in one step) installed only
at the underside of the roof deck

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

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

JM SOLUTIONS: HIGH PERFORMANCE WALLS

Cavity Insulation

Continuous Insulation

3-Coat Stucco or Siding	2x4 16" O.C.	R-13 JM Fiberglass -or- 3.5" JM Corbond oc SPF	1.5" JM AP™ Foil (R-9.3)
		3.1" JM Corbond III® cc SPF	1" JM AP Foil (R-6.0)
		R-15 JM Fiberglass	0.75" JM AP Foil (R-5.0)
	2x6 16" O.C.	R-19 JM Fiberglass -or- 5.5" JM Corbond oc SPF	0.75" JM AP Foil (R-5.0)
		R-21 JM Fiberglass -or- 3" JM Corbond III cc SPF	0.75" JM AP Foil (R-5.0)
		1.5" JM Corbond III cc SPF + R-13 JM Fiberglass -or- 3.25" JM Corbond III cc SPF	0.625" JM AP Foil (R-3.5)
		2" JM Corbond III cc SPF + R-13 JM Fiberglass	0.5" JM AP Foil (R-2.7)
	2x6 Advanced Framing	R-19 JM Fiberglass	0.75" JM AP Foil (R-5.0)
		R-21 JM Fiberglass -or- 5.5" JM Corbond oc SPF	0.625" JM AP Foil (R-3.5)
		R-23 JM Fiberglass (Spider or BIBS) -or- 3.25" JM Corbond III cc SPF	0.5" JM AP Foil (R-2.7)
		2" JM Corbond III cc SPF + R-13 JM Fiberglass -or- 3.85" JM Corbond III cc SPF	none
1-Coat Stucco Over R-4 EPS	2x4 16" O.C.	R-15 JM Fiberglass -or- 2.4" JM Corbond III cc SPF	R-4 associated with EPS board as part of 1-coat stucco system
	2x6 16" O.C.	R-21 JM Fiberglass -or- 1.5" JM Corbond III cc SPF + R-13 JM Fiberglass	
		R-19 JM Fiberglass -or- 5.5" JM Corbond oc SPF	
	2x6 Adv. Framing	R-19 JM Fiberglass -or- 5.5" JM Corbond oc SPF -or- 1.5" JM Corbond III cc SPF + JM R-13 Fiberglass	



Climate Zones 1-5 and 8-16



Climate Zones 6 and 7

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