COLORADO MODEL LOW ENERGY AND CARBON CODE

SUMMARY OF KEY RESIDENTIAL ENERGY CODE REQUIREMENTS

The Model Low Energy and Carbon Code, which is required by state law HB22-1362, becomes Colorado's new minimum energy code on **July 1, 2026**. Any municipality or county that updates any of its building codes after that date must adopt the model code or a code that will achieve greater energy efficiency and pollution reductions.

CODE CHANGE HIGHLIGHTS

- Homes ≥7500 sq. ft. must use the ERI path.
- Additional efficiency credits are required per R408.
- Electric ready, solar ready and EV ready are required per R409.

BUILDING ENVELOPE AND DUCT REQUIREMENTS

PRESCRIPTIVE	CLIMATE ZONE 4	CLIMATE ZONE 5	CLIMATE ZONE 6	CLIMATE ZONE 7
Wood Frame Wall	R-30 or R-20+5ci or R-13+10ci or R-20ci / U-0.045			
Ceilings	R-49 / U-0.026			
Crawl Space Walls	R-13 or R-10ci / U-0.065	R-15ci or R-19 or R-13+5ci / U-0.055		
Fenestration	U-0.30 / SHGC-0.40	U-.28 / SHGC-NR		U-.27 / SHGC-NR
Floor	R-19 or R-13+5ci or R-15ci / U-0.047	R-30 or R-19+7.5ci or R-20ci / U-0.033		R-38 or R-19+10ci or R-25ci / U-0.028
Mass Wall[a]	R-8/13 / U-0.098	R-13/17 / U-0.082	R-15/20 / U-0.060	R-19/21 / U-0.057
Slab R-value and Depth[b]	R-10ci / 3 feet		R-10ci / 4 feet	
Basement Walls	R-13 or R-10ci / U0.059	R-15ci or R-19 or R-13+5ci / 0.050		
Insulation Entirely Above Roof Deck	R-30ci / U-0.032			R-35ci / U-0.028

TOTAL SYSTEM DUCT LEAKAGE[c]	CFM25 / 100 SQ. FT.
HVAC equipment, not installed	3
HVAC equipment, installed	4
HVAC not installed, but in conditioned space	6
HVAC installed, in conditioned space	8

DUCT R-VALUE

R-VALUE
R-8[d]

AIR LEAKAGE

CLIMATE ZONE	MEASUREMENT
4 and 5	3 ACH50
6 and 7	2.5 ACH50

MAXIMUM ENERGY RATING INDEX (ERI)[e]

CLIMATE ZONE	MAXIMUM ERI
4 and 6	51
5	52
7	50

a. The second R-value applies when more than half is installed on the interior side.
b. Unheated. Add R-5 full slab for heated.
c. 3+ returns and/or dwelling <1000 sq. ft. changes targets per Table R403.3.8.
d. In attics. R-6 in other portions of the building. R-6 and R-4.2 respectively for ducts <3 inches.
e. Homes that are <5000 sq. ft.

MORE INFORMATION ON THE COLORADO MODEL LOW ENERGY AND CARBON CODE CAN BE FOUND HERE:
https://codes.iccsafe.org/content/COMLEACC2024P1

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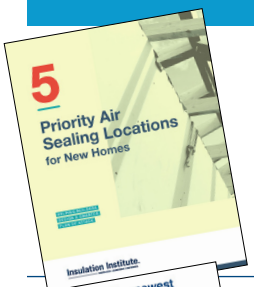
ENERGY-EFFICIENT, COST-EFFECTIVE CONSTRUCTION WITH FIBERGLASS AND MINERAL WOOL INSULATION

As code levels advance, **keep informed about innovative practices** to meet or exceed code requirements using cost-effective fiberglass and mineral wool insulation.

The following resources in the table below are just a subset of the many guides available from the **Insulation Institute** to help you achieve new performance requirements with proven approaches.

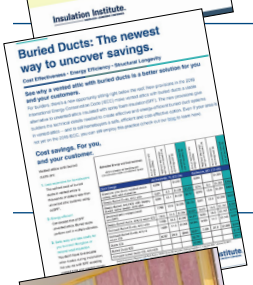
INSULATION INSTITUTE RESOURCES



Air Leakage

As states adopt more stringent energy codes, some builders may experience challenges meeting new mandatory air leakage requirements. Fiberglass and mineral wool insulation is the low-cost solution for homebuilders to meet or surpass code air leakage rate requirements of 3 or 5 air changes per hour depending on climate zone. For homeowners, an airtight building envelope results in energy savings and increased thermal comfort.

https://insulationinstitute.org/wp-content/uploads/2018/05/N090-5-Air-Sealing-Locations-for-New-Homes.pdf



Ducts Buried Within Ceiling Insulation

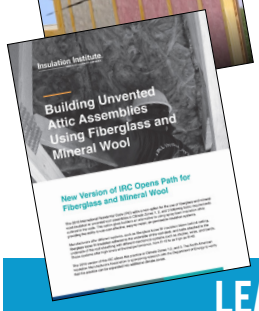
Deeply buried ducts in attics is an easy way to lower energy code compliance costs for builders using the simulated energy performance path. Homeowners can benefit from energy savings realized from lower-capacity, lower-cost HVAC systems.

https://insulationinstitute.org/wp-content/uploads/2019/03/N087-Buried-Ducts-The-newest-way-to-uncover-savings.pdf

Proper Installation of Insulation

Grade I installation delivers superior energy efficiency and is increasingly required by state energy codes. Insulation installation jobs that fail to meet Grade I criteria can mean construction delays due to callbacks, HERS rating penalties, and failed code inspections. Grade I installation is readily achievable by following basic guidelines as recommended by manufacturers. NAIMA offers free online training for installers.

www.grade1insulation.org



Unvented Attics Using Fiberglass and Mineral Wool Insulation

Unvented attics can be constructed by installing fiberglass or mineral wool insulation below the roof deck instead of using more costly materials like spray foam. In addition, fiberglass and mineral wool insulation products are green certified and do not carry recommended occupancy restrictions due to product off-gassing after installation. Starting with the 2018 IRC, this practice is outlined in detail within the code. Homeowners benefit from lower construction costs and the use of a safe product.

https://insulationinstitute.org/wp-content/uploads/2018/05/BuildingUnventedAtticAssemblies-N089.pdf

LEARN MORE TO SEE HOW THE ENERGY CODE SAVES YOU MONEY:

https://insulationinstitute.org/wp-content/uploads/2024/10/Modern-Energy-Codes-Save-Money-Infographic.pdf

Get the Facts for a Stronger Business

Learn more about fiberglass and mineral wool insulation at InsulationInstitute.org

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