



DENVER AND FORT COLLINS COLORADO

SUMMARY OF KEY RESIDENTIAL ENERGY CODE REQUIREMENTS

Colorado is one of eight states that does not have a statewide building code. Rather, the building codes are adopted and enforced at a jurisdictional level. Below are the current residential energy code requirements for Denver and Fort Collins, Colorado.



CODE CHANGE HIGHLIGHTS

- Denver has added in R407.1 which adds additional energy efficiency packages. New residential construction must pick one of the items listed in this section.
- Fort Collins added a footnote that requires all rim joist and adjoining plates shall be air sealed.
- Denver and Fort Collins, Colorado are operating off the 2018 IECC with local amendments.

BUILDING ENVELOPE REQUIREMENTS

CODE PATH	2018 IECC CODE SECTION	JURISDICTION		
		DENVER	FORT COLLINS	
			NON-ELECTRIC HEAT	ELECTRIC HEAT
Prescriptive	R402.1.2 – Wood Frame Wall	R-20 or 13 + 5 ci / U-0.060	R-20 or 13 + 5 ci / U-0.057	R-20 + 5 ci / U-0.048
	R402.1.2 – Ceilings	R-49 / U-0.026	R-49 / U-0.026	R-49 / U-0.026
	R402.1.2 – Basements	R-19 or R-15 ci / U-0.050	R-19 or R-15 ci / U-0.050	R-19 or R-15 ci / U-0.050
	R402.1.2 – Crawl Space Walls	R-19 or R-15 ci / U-0.055	R-19 or R-15 ci / U-0.055	R-19 or R-15 ci / U-0.055
	R402.1.2 – Fenestration	U-0.30	U-0.30	U-0.30

DUCT LEAKAGE

AIR LEAKAGE

JURISDICTION		CFM25 / 100 SQ. FT.	JURISDICTION		MEASUREMENT
Denver	Installed air handler	6	Denver		3 ACH50
	Air handler not installed	3			
Fort Collins	Installed air handler	3	Fort Collins		3 ACH50
	Air handler not installed	4			

TABLE R406.4 MAXIMUM ENERGY RATING INDEX (ERI)

JURISDICTION	MAXIMUM ERI
Denver	56
Fort Collins	61

Note: All R-values are minimums and U-factors maximums.

MORE INFORMATION ON THE DENVER ENERGY CODE CAN BE FOUND HERE:

www.denvergov.org/content/dam/denvergov/Portals/696/documents/Denver_Building_Code/2019-code-update/2019_DBC_amended_aug2020.pdf



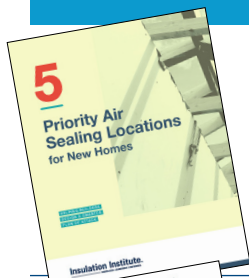
ENERGY-EFFICIENT, COST-EFFECTIVE CONSTRUCTION WITH FIBERGLASS AND MINERAL WOOL INSULATION



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.

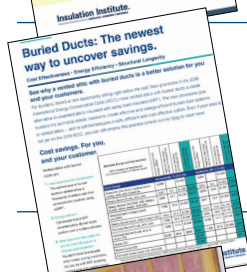
INSULATION INSTITUTE RESOURCES



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.

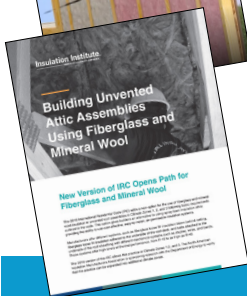
<https://insulationinstitute.org/wp-content/uploads/2019/03/N087-Buried-Ducts-The-newest-way-to-uncover-savings.pdf>



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 ABOUT THE ERI COMPLIANCE PATH HERE:

<https://www.energycodes.gov/technical-assistance/training/courses/2015-iecc-energy-rating-index-eri-compliance-alternative>

Get the Facts for a Stronger Business

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

NAIMA
NORTH AMERICAN INSULATION
MANUFACTURERS ASSOCIATION

P.O. Box 1906 • Alexandria, VA 22313
InsulationInstitute.org • 703.684.0084