

ALASKA BUILDING ENERGY EFFICIENCY STANDARD



SUMMARY OF KEY RESIDENTIAL ENERGY CODE REQUIREMENTS

Alaska does not have a statewide energy code. Rather, the Alaska Housing Finance Corporation (AHFC) has a set of Building Energy Efficiency Standards (BEES). The Standards are currently comprised of the 2018 IECC with some Alaska-specific amendments. The AHFC adopted the 2018 IECC on **November 28, 2018**.



CODE CHANGE HIGHLIGHTS

- Buildings that are built on or after January 1, 1992 must comply with the Building Energy Efficiency Standard if AHFC or other state financial assistance is used in the purchase of a loan.
- Section R403.3.6 outlines criteria for ducts to be buried within ceiling insulation.
- In place of the Energy Rating Index contained in the 2018 IECC, Alaska has implemented an alternative following the AK HERS Guidelines using AKWarm. AKWarm is an energy rating program that gives ratings to houses on a 0-100 scale. It compares the home to how well it meets a certain energy standard.

BUILDING ENVELOPE REQUIREMENTS

CODE PATH	2018 IECC CODE SECTION	CHANGE SUMMARY			
		CLIMATE ZONE 6	CLIMATE ZONE 7	CLIMATE ZONE 8	CLIMATE ZONE 9
Prescriptive	R402.1.2 – Wood Frame Wall	R-25 / U-0.048	R-25 / U-0.048	R-30 / U-0.042	R-35 / U-0.036
	R402.1.2 – Ceilings	R-54 or R-43 ^a / U-0.023	R-54 or R-43 ^a / U-0.023	R-59 or R-48 ^a / U-0.021	R-65 or R-52 ^a / U-0.020
	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	NR
	R402.1.2 – Crawl Space Walls	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	NR
	R402.1.2 – Fenestration	U-0.30	U-0.30	U-0.22	U-0.20

DUCT LEAKAGE		AIR LEAKAGE		AKWARM PROGRAM
MEASUREMENT	CFM25 / 100 SQ. FT.	ALL CLIMATE ZONES		ALL CLIMATE ZONES
Rough-in (installed air handler)	4			
Rough-in (air handler not installed)	3	4 ACH50		89 MAX VALUE ^b
Post-construction	4			

a. The smaller value may be used with a properly sized, energy-heel truss. Zones 6 and 7 may use a 13" energy heel truss.

b. BEES minimum is 5 stars, which is equivalent to 89 points on the Home Energy Rating System scale.

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

MORE INFORMATION ON THE ALASKA ENERGY EFFICIENCY STANDARD CAN BE FOUND HERE:

www.ahfc.us/application/files/1815/5191/6053/2018_IECC_Alaska_Specific_Amendments.pdf

MORE INFORMATION ON THE AKWARM PROGRAM AND AK HERS GUIDELINES:

www.ahfc.us/application/files/8814/0296/1045/energy_rater_manual_090113.pdf

Insulation Institute[™]

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This summary is offered for informational purposes only. It does not purport to be an exhaustive analysis of code changes or provide advice that will ensure guaranteed compliance with any energy code provision. Please consult with local authorities before finalizing your installation plans.



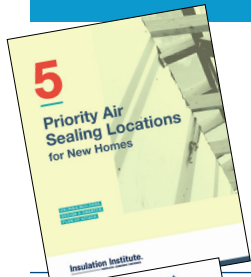
ENERGY-EFFICIENT, COST-EFFECTIVE CONSTRUCTION WITH FIBERGLASS AND MINERAL WOOL INSULATION



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.

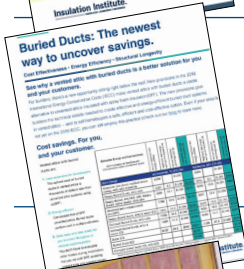
INSULATION INSTITUTE RESOURCES



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.

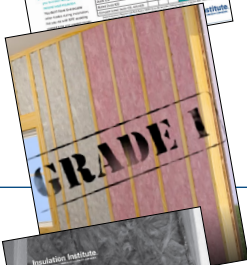
<https://insulationinstitute.org/wp-content/uploads/2018/05/N090-5-Air-Sealing-Locations-for-New-Homes.pdf>



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:

www.energycodes.gov/resource-center/training-courses/2015-iecc-%E2%80%93-energy-rating-index-eri-compliance-alternative

Get the Facts for a Stronger Business

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



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