OREGON RESIDENTIAL SPECIALTY CODE

SUMMARY OF KEY RESIDENTIAL ENERGY CODE REQUIREMENTS

The 2023 Oregon Residential Specialty Code (ORSC) is based on the 2021 International Residential Code (IRC) and went into effect **April 1, 2024**.

CODE CHANGE HIGHLIGHTS

- Homes using N1105.3 duct installation, exception 3, shall select two measures from Table N1101.1(2).
- Wall Insulation Upgrade is a new option in the additional efficiency section.
- ERI is now an allowable compliance path.

BUILDING ENVELOPE AND DUCT REQUIREMENTS

PRESCRIPTIVE	CLIMATE ZONE 4 AND 5
Wall Insulation - Above Grade	R-21 intermediate / U-0.059
Wall Insulation - Below Grade	R-21 or R-15 ci / C-0.063
Flat Ceilings	R-49 / U-0.021
Vaulted Ceilings[a,b]	R-30 rafter or R-30 scissor truss / U-0.033
Under Floors	R-30 / U-0.033
Slab-edge Perimeter	R-15 / F-0.52
Windows	U-0.27

AIR LEAKAGE

CLIMATE ZONE	MEASUREMENT
ALL CLIMATE ZONES	4 ACH50

DUCT R-VALUE

R-8[c]

MAXIMUM ENERGY RATING INDEX (ERI)

CLIMATE ZONE 4	CLIMATE ZONE 5
54	55

a. Vaulted ceiling surface area exceeding 50 percent of the total heated space floor area shall have a U-factor no greater than U-0.026.

b. Advanced framing per N1104.6 required.

c. Buried ducts and ducts in unconditioned space.

ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS

REQUIREMENT	DESCRIPTION
High Efficiency HVAC	Gas AFUE 94% or heat pump HSPF10.0/14.0 SEER or 8.5 HSPF2/15.0 SEER2 or ground source heat pump
High Efficiency Water Heating	Gas 0.90 UEF or heat pump 3.45 UEF or 0.80 UEF instantaneous
Wall Insulation Upgrade	R-21 / U-0.045 framing with R-5 continuous insulation
Advanced Envelope	Windows U-0.21, Ceiling R-60/U-0.017, Floors R-38/U-0.026 or Slab F-0.48
Ductless Heat Pump	HSPF 10.0 or HSPF2 9.0
Improved Envelope UA	8% lower than code UA
2.75ACH + Efficient Ventilation	Ventilation with heat recovery ≥66%

MORE INFORMATION ON OREGON RESIDENTIAL SPECIALTY CODE:

https://www.oregon.gov/bcd/codes-stand/pages/residential-structures.aspx

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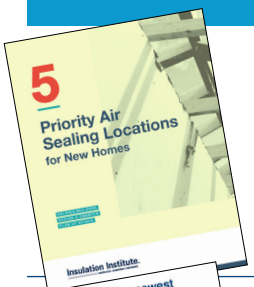
ENERGY-EFFICIENT, COST-EFFECTIVE CONSTRUCTION WITH FIBERGLASS AND MINERAL WOOL INSULATION

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.

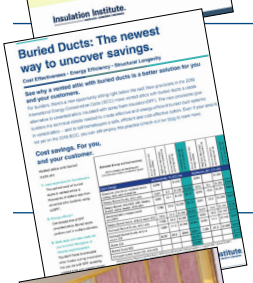
INSULATION INSTITUTE RESOURCES



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

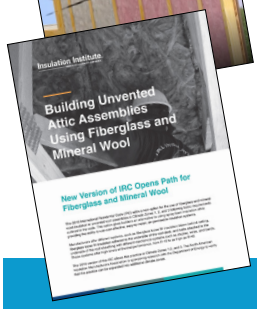
Deeply buried ducts in attics is an easy way to lower energy code compliance costs for builders using the simulated energy performance path. Homeowners can benefit from energy savings realized from lower-capacity, lower-cost HVAC systems.

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 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

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