

SUMMARY OF KEY RESIDENTIAL ENERGY CODE REQUIREMENTS

The 2015 IECC with Texas specific amendments went into effect on **September 1, 2016**. This document summarizes changes to the building envelope-related requirements in the updated code for Texas.

- CODE CHANGE HIGHLIGHTS

- Cities in Texas can adopt more stringent codes and a list of codes adopted by each city can be found under the "City Code Adoption List" label on SPEER's website: https://eepartnership.org/btoresources
- ENERGY STAR Homes certification can be used for code compliance.



► BUILDING ENVELOPE AND DUCT REQUIREMENTS <</p>

CODE DATU	2015 IECC CODE SECTION	CHANGE SUMMARY		
CODE PATH		CLIMATE ZONE 2	CLIMATE ZONE 3	CLIMATE ZONE 4
Prescriptive	R402.1.2 – Wood Frame Wall	R-13 / U-0.084	R-20 or 13 +5 ci / U-0.060	R-20 or 13 + 5 ci / U-0.060
	R402.1.2 - Ceilings	R-38 / U-0.030	R-38 / U-0.030	R-49 / U-0.026
	R402.1.2 - Slab	N/A	N/A	R-10, 2ft
	R402.1.2 - Crawl Space Walls	N/A / U-0.477	R-13 or 5 ci / U-0.136	R-13 or 10 ci / U-0.065
	R402.1.2 - Fenestration	U-0.40 / SHGC-0.25	U-0.35 / SHGC-0.25	U-0.35 / SHGC-0.40

DUCT LEAKAGEDUCT R-VALUEAIR LEAKAGEMEASUREMENTCFM25 / 100 SQ. FT.R-VALUECLIMATE ZONEMEASUREMENTRough-in (with air handler)425 ACH50

 Rough-in (with air handler)
 4
 2
 5 ACH50

 Rough-in (no air handler)
 3
 R-8a
 3
 3 ACH50

 Post-construction
 4
 3 ACH50

TABLE R406.4 MAXIMUM ENERGY RATING INDEX (ERI)

CLIMATE ZONE	SEPT 1, 2022-AUG 31, 2025	SEPT 1, 2025-AUG 31, 2028	ON OR AFTER SEPT 1, 2028
2	59	57	55
3	59	57	55
4	63	61	59

a. In attics. R-6 in other portions of the building. R-6 and R-4.2 respectively for ducts <3 inches.

ACCESS THE FULL TEXAS MINIMUM CONSTRUCTION CODE HERE:

https://codes.iccsafe.org/content/IECC2015

Insulation Institute,

- KNOWLEDGE. LEADERSHIP. CONFIDENCE.

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

Priority Air Sealing Locations for New Homes

GRADE

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-Thenewest-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

