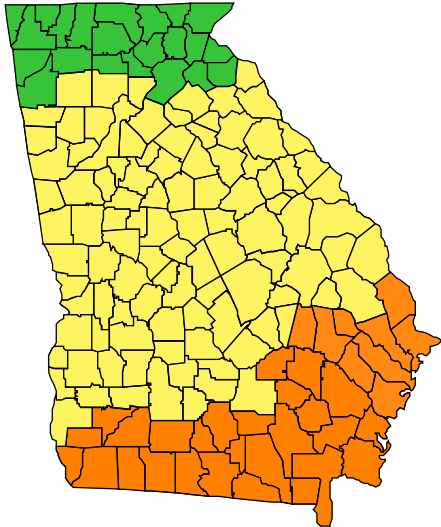


2011 Georgia State Supplements and Amendments to the 2009 IECC

Step-by-Step Instructions

- Using the climate zone map below, match the jurisdiction to the appropriate IECC climate zone. Use the simplified table of IECC building envelope requirements (below) to determine the basic thermal envelope requirements associated with the jurisdiction.



- Use the “Outline of 2009 Requirements for Georgia homes” printed on the back of this sheet as a reference or a categorized index to the IECC requirements. Construct the building according to the requirements of the IECC, the Georgia State Supplements, and other applicable code requirements.

The 2009 International Energy Conservation Code

The 2009 IECC was adopted by reference by the Georgia Department of Community Affairs (with 2011 Georgia-specific amendments) and is effective January 1, 2011. For additional details on Georgia’s building energy code, contact the DCA by phone or visit their website at www.dca.ga.gov.

Limitations

This guide is an energy code compliance aid for Georgia based upon the 2009 IECC and the 2011 Georgia State Supplements and Amendments. This guide does not provide a guarantee for meeting the state energy code. For more details on the energy code adopted by Georgia, please contact your local building code official.

CLIMATE ZONE 4				
Banks	Fannin	Habersham	Rabun	White
Catoosa	Floyd	Hall	Stephens	Whitfield
Chattooga	Franklin	Lumpkin	Towns	
Dade	Gilmer	Murray	Union	
Dawson	Gordon	Pickens	Walker	
CLIMATE ZONE 3				
Baldwin	Crawford	Henry	Muscogee	Taylor
Barrow	Crisp	Houston	Newton	Telfair
Bartow	DeKalb	Irwin	Oconee	Terrell
Ben Hill	Dodge	Jackson	Oglethorpe	Tift
Bibb	Dooly	Jasper	Paulding	Treutlen
Bleckley	Dougherty	Jefferson	Peach	Troup
Bulloch	Douglas	Jenkins	Pike	Turner
Burke	Early	Johnson	Polk	Twiggs
Butts	Elbert	Jones	Pulaski	Upton
Calhoun	Emanuel	Lamar	Putnam	Walton
Candler	Fayette	Laurens	Quitman	Warren
Carroll	Forsyth	Lee	Randolph	Washington
Chattahoochee	Fulton	Lincoln	Richmond	Webster
Cherokee	Glascocock	Macon	Rockdale	Wheeler
Clarke	Greene	Madison	Schley	Wilcox
Clay	Gwinnett	Marion	Screven	Wilkes
Clayton	Hancock	McDuffie	Spalding	Wilkinson
Cobb	Haralson	Meriwether	Stewart	Worth
Coffee	Harris	Monroe	Sumter	
Columbia	Hart	Montgomery	Talbot	
Coweta	Heard	Morgan	Taliaferro	
CLIMATE ZONE 2				
Appling	Bryan	Decatur	Lanier	Pierce
Atkinson	Camden	Echols	Liberty	Seminole
Bacon	Charlton	Effingham	Long	Tattnall
Baker	Chatham	Evans	Lowndes	Thomas
Berrien	Clinch	Glynn	McIntosh	Toombs
Brantley	Colquitt	Grady	Miller	Ware
Brooks	Cook	Jeff Davis	Mitchell	Wayne



	Windows			Insulation					Foundation		
	Fenestration U-Factor	Skylight U-Factor	Glazed Fenestration SHGC	Ceiling R-Value	Wood Frame Wall R-Value	Attic Kneewall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab R-Value and Depth	Crawl Space Wall R-Value
Zone 4	0.35	0.60	0.30	38	13	18	5/10	19	10/13	0	10/13
Zone 3	0.50	0.65	0.30	30	13	18	5/8	19	5/13	0	5/13
Zone 2	0.50	0.75	0.30	30	13	18	4/6	13	0	0	0

Outline of 2009 Requirements for Georgia Homes

The simplified table of building envelope requirements (on the previous page) applies to new residential buildings, as defined in the IECC, with wood framing and/or mass walls. The table also applies to all additions, alterations and replacement windows. The table is based upon the thermal envelope requirements in the 2009 IECC's prescriptive compliance option for the appropriate climate zones (Table 402.1.1) and the 2011 Georgia Supplements and Amendments to the IECC.

Documentation (IECC section 401.3 and GA Amendments)

- A permanent certificate shall be posted on the electric panel box or air handler and must list duct and envelope leakage test results, load calculations, component insulation values, window, water heating and HVAC information.

Ducts (IECC section 403.2)

- Ducts must be sealed with mastic or mastic tape. Tapes may be used for assembly but must be covered with at least 0.08" (2 mm) of mastic [403.2.4 - GA Amendments].
- Ducts must be tested for tightness by a certified Duct and Envelope Tightness (DET) Verifier [403.2.2 and Appendix B - GA Amendments].
- Supply ducts in attics shall be insulated to a minimum of R-8. All other ducts outside the building thermal envelope shall be insulated to a minimum of R-6.
- Ducts located inside the building thermal envelope are exempt from the insulation and testing requirements.
- Building cavities may not be used as supply or return ducts [403.2.3 - GA Amendments].

Air Sealing (IECC section 402.4)

- The building envelope (including recessed lighting fixtures) must be sealed to limit air leakage. Refer to **Appendix A of the GA Amendments** for specific details. The attic side of kneewalls shall have a sealed air barrier.
- The building envelope shall be tested for air tightness by a certified DET Verifier [402.4.2.1 and Appendix B - GA Amendments].
- Low-rise multifamily (R-2) buildings may either sample test 1 in 4 units per floor or instead conduct multiple third-party visual inspections on every dwelling unit. [402.4.2.2 - GA Amendments].

Lighting (IECC sections 202 and 404.1)

- A minimum of 50% of lamps in permanently installed fixtures must be high-efficacy (e.g., CFLs, most linear fluorescents and LEDs) or controlled with an occupancy/vacancy sensor or automated lighting control system.

Fenestration (IECC sections 303.1.3, 402.3, 402.4.4, 402.5)

- Fenestration (including all windows and doors) and Skylight U-factor and Glazed Fenestration SHGC values are maximum acceptable levels. An area-weighted average of fenestration products is permitted to satisfy these requirements, provided these values do not exceed the glazed fenestration maximum values in Table 402.1.4 of the Georgia Amendments.
- Window, door and skylight U-factors and SHGCs must be determined from a National Fenestration Rating Council (NFRC) rating that is independently certified and set forth on a label on the product or from a limited table of product default values in the IECC. See www.nfrc.org for more details on the NFRC rating system. Windows must also be labeled in a manner to show that they meet the IECC's air infiltration requirements.

- Up to 15 square feet of glazed fenestration may be exempt from the U-factor and SHGC requirements. One side-hinged opaque door assembly up to 24 square feet is exempt from the Fenestration U-factor requirement. This exemption shall not apply to attic access doors. These exceptions apply to the prescriptive compliance path only.

Insulation (IECC sections 303.1.4 and 402)

- Insulation R-values are minimum acceptable levels.
- R-values for walls represent the sum of cavity insulation plus insulated sheathing, if any. The second R-value for mass walls applies when more than half the insulation is on the interior of the mass wall.
- The insulation for basement walls must be from the top of the wall down 10 feet below grade or to the basement floor, whichever is less. Class I vapor retarder and insulation details for crawl space walls are further specified in **section 402.2.9 of the GA Amendments**.
- Floor insulation must be installed to maintain continuous, permanent contact with the underside of the subfloor decking. Cantilevered floors over outside air shall be R-30 with blocking in band area above exterior wall.
- Access doors from conditioned to unconditioned spaces (e.g., attics, unconditioned basements, and crawl spaces) shall be weatherstripped and insulated to the level of R-5 (hatches must be R-19) [402.2.3 - GA Amendments].
- Special insulation exceptions related to ceilings with attic spaces, unvented attic assemblies, masonry veneer and thermally isolated sunrooms are set forth in IECC section 402 and in **Table 402.1.4 of the GA Amendments**.
- Simple U-factor trade-offs among building envelope components are permitted under Section 402.1.4; however, certain hard minimums specified in **Table 402.1.4 of the GA Amendments** shall apply.

Systems (IECC section 403 and IRC section M1401.3)

- HVAC systems must be sized using ACCA Manual J or equivalent. Summary results shall be posted on certificate.
- Electric resistance heat may not be used as a primary heat source [403.6.1 - GA Amendments].
- A programmable thermostat is required when the primary heating system is a forced-air furnace. Heat pumps shall lockout features to prevent supplementary electric resistance heat when the compressor can meet the load.
- Mechanical system piping must be insulated to a minimum of R-3.
- Specific requirements apply to circulating hot water systems, mechanical ventilation, snow melt systems, and pools.
- Power attic ventilators connected to the grid are not allowed. Solar powered power attic ventilators are allowed. [403.10 - GA Amendments]