

Compliance Certificate Fact Sheet

for the Georgia Building Energy Code

1

Your builder/designer's name (just in case you forget)

Builder/Design Professional: _____ Phone: _____

...and his/her contact information (in case you need to call about an issue with your home)

2

The primary components of your home's exterior shell, or 'building envelope,' and their insulation values, known as R-values and U-factors (typical values* in red).

Envelope Summary:

- List the R-Value for the following components:

Flat ceiling/roof:	R-30	Sloped/vault ceiling:	R-19
Exterior wall:	R-13	Above grade mass wall:	R-4
Attic kneewall:	R-13	Attic kneewall sheathing:	R-5
Basement stud wall:	R-13	Basement continuous:	R-5
Crawlspace stud wall:	R-13	Crawlspace continuous:	R-5
Foundation slab:	R-0	Floors over unconditioned space:	R-19
Cantilevered Floor:	R-30	Other insulation:	N/A

- Fenestration Components:

Window U-factor:	U-0.35	Window SHGC:	0.30 SHGC
Skylight U-factor:	U-0.65	Skylight SHGC:	0.30 SHGC
Glazed Door U-factor:	U-0.50	Opaque Door U-factor:	U-0.50
		(<50% glazed)	

*Fenestration' is another word for openings in a building (i.e., windows and doors).

R-value vs. U-factor

Both of these numbers relate to resistance to thermal conduction, or insulation value. In a nutshell, higher R-values and lower U-factors equate to better insulation, which in turn leads to more comfort in your home and less wasted energy.

Hungry for a formula? Here you go: $R = \frac{1}{U}$

- Building Envelope Tightness (BET):

BET test conducted by: _____ Phone: _____
 Fan Flow at 50 Pascals = _____ CFM₅₀ Total Conditioned Volume = _____ ft³
 ACH₅₀ = CFM₅₀ x 60 / Volume = _____ ACH₅₀ (must be less than 7 ACH₅₀)
 Low Rise Multifamily Visual Inspection Option
 (The visual inspection option may be conducted by a third-party instead of the BET test for R-2 buildings only.)
 Visual inspection conducted by: _____ Phone: _____

3

The Building Envelope Tightness (BET) section contains the results of the BET test conducted on your home. This test helps to determine how leaky the house is by depressurizing or pressurizing a home with a device called a blower door.

Essentially a large, calibrated fan, the blower door helps to measure all of the leaks through the gaps and seams in a house. The energy code requires houses to achieve a value less than 7 ACH₅₀ (see box to left for more on what this means).

Why is a tight building envelope so important? A home without air sealing does a poor job of keeping conditioned air in and unconditioned air out. In the summer, this means hot and muggy air infiltrating and giving your HVAC equipment the workout of its life. Wintertime brings cold drafts and more energy wasted trying to keep a leaky house warm.

*The values listed may not necessarily coincide on the same compliance certificate. For example, a house with a crawlspace likely will not have a basement, in which case basement insulation values would not be listed.

Georgia Residential Energy Code Compliance Certificate*

Builder/Design Professional: _____ Phone: _____

Building Envelope Summary:

List the R-Values for the following components:

Flat ceiling/roof:	_____	Sloped/vault ceiling:	_____
Exterior wall:	_____	Above grade mass wall:	_____
Attic kneewall:	_____	Attic kneewall sheathing:	_____
Basement stud wall:	_____	Basement continuous:	_____
Crawlspace stud wall:	_____	Crawlspace continuous:	_____
Foundation slab:	_____	Floors over unconditioned space:	_____
Cantilevered Floor:	_____	Other insulation:	_____

Fenestration Components:

Window U-factor:	_____	Window SHGC:	_____
Skylight U-factor:	_____	Skylight SHGC:	_____
Glazed Door U-factor:	_____	Opaque Door U-factor:	_____

BET test conducted by: _____ Phone: _____
 Fan Flow at 50 Pascals = _____ CFM₅₀ Total Conditioned Volume = _____ ft³
 ACH₅₀ = CFM₅₀ x 60 / Volume = _____ ACH₅₀ (must be less than 7 ACH₅₀)
 Low Rise Multifamily Visual Inspection Option
 (The visual inspection option may be conducted by a third-party instead of the BET test for R-2 buildings only.)
 Visual inspection conducted by: _____ Phone: _____

Mechanical Summary:

Water Heater Energy Factor: _____ Fuel type: Gas Electric Other _____

Number of Heating and Cooling Systems: _____

Heating System Type (choose one):
 Gas: _____ AFUE Air-Source Heat Pump: _____ HSPF
 Other: _____ Efficiency: _____

Cooling System Type (Standard DX, Heat Pump, Geothermal, etc.): _____
 Cooling System Efficiency: _____ SEER EER Other _____

Heating/Cooling Load Calculations Performed by: _____ Phone: _____
 Total Heating Load (based on ACCA Man. 1) or other approved methodology: _____ Btu/h
 Total Cooling Load (based on ACCA Man. 1) or other approved methodology: _____ Btu/h
 Cooling Sensible Load: _____ Btu/h Cooling Latent Load: _____ Btu/h
 Total Air Handler CFM (based on design calculations): _____ CFM
 Duct Tightness Test Conducted by: _____ Phone: _____

CFM₅₀ per 100 ft² of conditioned floor area = CFM₅₀ x 100 / Conditioned floor area served
 If all ducts are not located within conditioned space, builder must verify that either the pressurization duct leakage to outdoors (PDL) is ≤ 8 cfm/100 ft², the post construction total duct leakage (PCTL) is ≤ 12 cfm/100 ft², or the rough-in test (RIT) with air handler installed is ≤ 8 cfm/100 ft². States which method was used to conduct the duct tightness test: duct leakage (DL), modified blower door subtraction method (MBSD), or automated multiple blower door (AMBDD).

System	Method (DL, MBSD, AMBDD)	Test (PDL, RIT, RTT)	CFM ₅₀	Area served (ft ²)	Test Result
1					
2					
3					

*Note: This permanent certificate shall be posted on or in the electrical distribution panel. Certificate shall be completed by the builder or registered design professional. Where there is more than one value for each component, certificate shall list the value covering the largest area.


BET Breakdown

Struggling to make sense of the mysterious acronyms that dominate the Building Envelope Tightness section? Hopefully this will help a little.

CFM₅₀

(Cubic Feet per Minute at 50 pascals*)

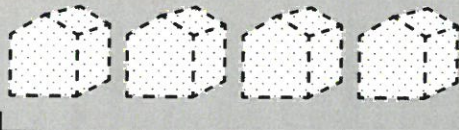
CFM₅₀ is the measure of a flow rate—in this case, the volume of air that moves out of your house in a minute under simulated testing pressure.

7.5  ≈ 1 Cubic Foot

ACH₅₀

(Air Changes per Hour at 50 pascals*)

ACH₅₀ measures the number of times the air in your house changes out in an hour under simulated testing pressure.



4 housefuls of air in 1 hour = 4 ACH

*50 pascals is a simulated testing pressure

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4 The Mechanical Summary outlines the types and efficiencies of your heating and cooling equipment. It also provides details on your home's load calculations and who performed them.

Mechanical Summary:

Water Heater Energy Factor: _____ Ef Fuel type: Gas Electric Other

Number of Heating and Cooling Systems: _____

Heating System Type (choose one):

Gas: _____ AFUE Air-Source Heat Pump: _____ HSPF

Other: _____ Efficiency: _____

Cooling System Type (Standard DX, Heat Pump, Geothermal, etc.): _____

Cooling System Efficiency: _____ SEER EER Other

Heating/Cooling Load Calculations Performed by: _____ Phone: _____

Total Heating Load (Based on ACCA Man. J or other approved methodology): _____ Btu/h

Total Cooling Load (Based on ACCA Man. J or other approved methodology): _____ Btu/h

Cooling Sensible Load: _____ Btu/h Cooling Latent Load: _____ Btu/h

Total Air Handler CFM (based on design calculations): _____ CFM

Load Calculations

Installing high-efficiency mechanical equipment is important for energy savings, yet properly sizing this equipment through accurate load calculations is often just as significant. Some HVAC contractors habitually disregard this critical step, so be your own advocate and scrutinize this section.

Thinking about changing out your old HVAC equipment? Opting for a high-efficiency model (look for models with a high SEER or EER) could save you hundreds of dollars on energy costs.

Georgia Residential Energy Code Compliance Certificate*

Builder/Design Professional: _____ Phone: _____

Envelope Summary:

- List the R-value for the following components:
 - Flat ceiling/roof: _____ Slipped/Vault ceiling: _____
 - Exterior wall: _____ Above grade mass wall: _____
 - Attic knee-wall: _____ Attic knee-wall sheathing: _____
 - Basement stud wall: _____ Basement continuous: _____
 - Crawlspace stud wall: _____ Crawlspace continuous: _____
 - Foundation slab: _____ Floors over unconditioned space: _____
 - Cantilevered floor: _____ Other insulation: _____
- Penetration Components:
 - Window U-factor: _____ Window SHGC: _____
 - Skylight U-factor: _____ Skylight SHGC: _____
 - Glazed Door U-factor: _____ Opaque Door U-factor: _____ (<50% glazed)
- Building Envelope Tightness (BET): _____

BET test conducted by: _____ Phone: _____

Fan Flow at 50 Pascals: _____ CFM₅₀ Total Conditioned Volume: _____ m³

ACH₅₀ = CFM₅₀ x 60 / Volume = _____ ACH₅₀ (must be less than 7 ACH₅₀)

Low Rise Multifamily Visual Inspection Option (This visual inspection option may be conducted by a third party instead of the BET test for 2-4 buildings only.)

Visual inspection conducted by: _____ Phone: _____

Mechanical Summary:

Water Heater Energy Factor: _____ Ef Fuel type: Gas Electric Other

Number of Heating and Cooling Systems: _____

Heating System Type (choose one):

Gas: _____ AFUE Air-Source Heat Pump: _____ HSPF

Other: _____ Efficiency: _____

Cooling System Type (Standard DX, Heat Pump, Geothermal, etc.): _____

Cooling System Efficiency: _____ SEER EER Other

Heating/Cooling Load Calculations Performed by: _____ Phone: _____

Total Heating Load (Based on ACCA Man. J or other approved methodology): _____ Btu/h

Total Cooling Load (Based on ACCA Man. J or other approved methodology): _____ Btu/h

Cooling Sensible Load: _____ Btu/h Cooling Latent Load: _____ Btu/h

Total Air Handler CFM (based on design calculations): _____ CFM

Duct Tightness Test Conducted by: _____ Phone: _____

CFM₂₅ per 100 ft² of conditioned floor area = CFM₂₅ x 100 / Conditioned floor area served

If all ducts are not located within conditioned space, builder must verify that either the postconstruction duct leakage to outdoors (PCO) is ≤ 8 cfm/100 ft², the post construction total duct leakage (PCT) is ≤ 12 cfm/100 ft², or the rough-in test (RIT) with air handler installed is ≤ 6 cfm/100 ft². State which method was used to conduct the duct tightness test: duct blower (DB), modified blower door subtraction method (MBDS), or automated multipoint blower door (AMBD).

System	Method (DB, MBDS, AMBD)	Test (PCO, PCT, RIT)	CFM ₂₅	Area served (ft ²)	Test Result
1					
2					
3					

*Note: This permanent certificate shall be posted on or in the electrical distribution panel. Certificate shall be completed by the builder or registered design professional. Where there is more than one value for each component, certificate shall list the value covering the largest area.

5 Similar to the BET test, the Duct Tightness Test measures the air tightness of the ductwork that circulates conditioned air throughout your house. Leaky ducts can actually be one of the biggest energy drains in a house.

Duct Tightness Test Conducted by: _____ Phone: _____

CFM₂₅ per 100 ft² of conditioned floor area = CFM₂₅ x 100 / Conditioned floor area served

If all ducts are not located within conditioned space, builder must verify that either the postconstruction duct leakage to outdoors (PCO) is ≤ 8 cfm/100 ft², the post construction total duct leakage (PCT) is ≤ 12 cfm/100 ft², or the rough-in test (RIT) with air handler installed is ≤ 6 cfm/100 ft². State which method was used to conduct the duct tightness test: duct blower (DB), modified blower door subtraction method (MBDS), or automated multipoint blower door (AMBD).

System	Method (DB, MBDS, AMBD)	Test (PCO, PCT, RIT)	CFM ₂₅	Area served (ft ²)	Test Result
1					
2					
3					

Test those Ducts

Testing ductwork for tightness is valuable not only for new homes, but also existing abodes. Finding a certified professional to test your existing home is as easy as visiting georgiapower.com/homeimprovements.

Duct testing involves the use of a duct blaster (a calibrated fan) and lots of tape. A certified tester will tape all of the supply and return grills in a home, pressurize the ductwork with the fan, and record and analyze the resulting flow of the fan.

*Note: This permanent certificate shall be posted on or in the electrical distribution panel. Certificate shall be completed by the builder or registered design professional. Where there is more than one value for each component, certificate shall list the value covering the largest area.

Compliance Certificate Location

If you live in a house built to the 2009 IECC (the current energy code), you should be able to make your way to your air handler (probably in your attic or basement) or electrical distribution panel to locate the compliance certificate.

Once you find it, check the values and visit southface.org/energy-codes for terms you don't know. This certificate is the starting point for understanding energy efficiency in your home and empowering you as a homeowner.



6 Duct Tightness You Can See! Check for mastic, a heavy-duty sealant, applied around the air handler and the joints and seams of ductwork. It's required by the energy code and makes your ducts super tight.