

# Duct and Envelope Tightness (DET) Verifier and Testing

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On January 1, 2011, the 2009 International Energy Conservation Code (IECC) with 2011 Georgia State Supplements and Amendments became mandatory and applicable statewide as the new Georgia State Minimum Standard Energy Code. The 2011 GA supplements and amendments include a new definition for Certified Duct and Envelope Tightness (DET) Verifier along with new mandatory testing requirements for verification of the building thermal envelope and duct tightness for new residential construction. Residential buildings include one and two family dwellings (R-3), multi-family apartment buildings (R-2) and residential care/assistance living facilities (R-4) that are three stories or less in height above grade.

The maximum allowable leakage rates for the building envelope and for duct systems that run external to the building envelope are outlined below.

- The building envelope must achieve less than 7 air changes per hour at 50 Pascals (7 ACH50).
- Duct systems can be tested either at rough in or post-construction with the total leakage test OR at post-construction with the leakage to the outside test.
- Rough-In Total (RIT) Leakage must be less than or equal to 6 CFM25 per 100 square feet of conditioned floor area served by that particular duct system.
- Post-Construction Total (PCT) Leakage must be less than or equal to 12 CFM25 per 100 square feet of conditioned floor area served by that particular duct system.
- Post-Construction Leakage to Outside (PCO) must be less than or equal to 8 CFM25 per 100 square feet of conditioned floor area served by that particular duct system.



Testing for building envelope and duct tightness shall be conducted by a certified DET verifier. A certified DET verifier shall be a certified Home Energy Rating Systems (HERS) rater, or be a certified Home Performance with ENERGY STAR contractor, or be a Building Performance Institute (BPI) analyst, or successfully complete a certified DET verifier course that is approved by the Georgia Department of Community Affairs (DCA). See DCA resource list below to find a certified DET Verifier in your area.

The required envelope and duct tightness testing is accomplished by using a blower door and duct blower (air duct blower) pressure testing system. The results of duct tightness and envelope tightness test are required to be listed by the DET Verifier on a permanent certificate that is posted on or near the electrical panel or air handler. A sample certificate is provided in Appendix D of the Georgia Supplements and Amendments or a [fillable format pdf copy](#) of the sample certificate is also available.

Refer to the [2011 GA State Supplements and Amendments](#) for the complete code requirements for Duct and Envelope Tightness (DET) Verifier and Testing. Additional helpful information about how to properly air seal the building envelope and air duct systems is found in Appendix A of the GA amendments and is also available from Southface Energy Institute or US Department of Energy at [www.energycodes.gov](http://www.energycodes.gov).

**Important Note:** Although the new Georgia State Energy Code was implemented as of January 1, 2011, the DET verification testing has been delayed for 6 months per the [waiver](#) issued by the Georgia Department of Community Affairs (DCA). The DET verification testing will become mandatory and applicable statewide for all new residential buildings that are permitted on or after July 1, 2011.

The following information is provided to help locate certified Duct and Envelope Tightness (DET) verifiers which can perform the duct envelope and tightness testing (blower door and duct blaster test).

**To find a certified HERS rater:**



Southface Energy Institute

Web: <http://www.southface.org>

Phone: 404-604-3611; email: [bpi@southface.org](mailto:bpi@southface.org).

Energy Vanguard, LLC

Web: <http://www.energyvanguard.com/certified-home-energy-raters/>

Phone: (404) 428-3393; Email: [abailes@energyvanguard.com](mailto:abailes@energyvanguard.com)

**To find a certified Home Performance with ENERGY STAR contractor:**



Home Performance with Energy Star

Web: [http://www.energystar.gov/index.cfm?fuseaction=new\\_homes\\_partners.locator](http://www.energystar.gov/index.cfm?fuseaction=new_homes_partners.locator)

Southface Energy Institute

Web: <http://www.southfacehomeperformance.com/>

Georgia Power Company

Web: [http://georgiapower.com/homeimprovements/contractors\\_list.asp](http://georgiapower.com/homeimprovements/contractors_list.asp)

**To find a certified BPI Analyst:**

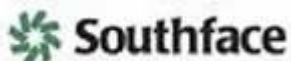


Building Performance Institute (BPI)

Web: [http://www.bpi.org/tools\\_locator.aspx?associateTypeID=CTR&accreditedSearch=N](http://www.bpi.org/tools_locator.aspx?associateTypeID=CTR&accreditedSearch=N)

**To find a certified DET Verifier that completed the DCA approved course:**

**Note:** The providers listed below are approved to teach the DCA approved course and can issue DET Verifier certifications to any individuals that have successfully completed the DET Verifier course and passed the practical and written exams.



Southface Energy Institute

Web: <http://www.southface.org/learning-center/library/certified-det-verifiers>

Phone: (404) 872-3549; Email: [info@southface.org](mailto:info@southface.org)



A SOUTHERN COMPANY

Georgia Power Company

Web: <http://georgiapower.com/homeimprovements>  
(Note: The GA Power DET Verifier webpage is currently under construction)  
Phone: (404) 506-7601; Email: [dllhowell@southernco.com](mailto:dllhowell@southernco.com)

Technical College System of Georgia  
Web: [http://www.tcsg.edu/college\\_campuses.php](http://www.tcsg.edu/college_campuses.php)  
Phone: (404) 679-1600; Email: [tphillips@tcsg.edu](mailto:tphillips@tcsg.edu)

Energy & Environmental Consulting, Inc.  
Web: <http://www.ebuildingscience.com>  
Phone: (229) 234-1230; Email: [eec@ebuildingscience.com](mailto:eec@ebuildingscience.com)

Green Home Georgia  
Web: <http://www.greenhomega.com>  
Phone: (404) 218-0088; Email: [greenhomega@gmail.com](mailto:greenhomega@gmail.com)

Home Diagnostics, Inc.  
Web: [www.hdsatlanta.com](http://www.hdsatlanta.com)  
Phone: (770) 822-3211; Email: [mfaircloth@hdsatlanta.com](mailto:mfaircloth@hdsatlanta.com)

ICF International  
Web: <http://www.icfi.com>  
Phone: (404) 592-2117; Email: [fwickstead@icfi.com](mailto:fwickstead@icfi.com)

**To purchase blower door and duct blaster test equipment:**

The Energy Conservatory  
Web: <http://www.EnergyConservatory.com>  
Phone: (612) 827-1117; Email: [info@energyconservatory.com](mailto:info@energyconservatory.com)

Retrotec  
Web: <http://www.retrotec.com>  
Phone: (604) 732.0142; Email: [sales@retrotec.com](mailto:sales@retrotec.com)

Infiltec  
Web: <http://www.infiltec.com>  
Phone: (888) 349-7236; Email: [DSaum@infiltec.com](mailto:DSaum@infiltec.com)

**To rent blower door and duct blaster test equipment:**

Home Builders Association of Georgia (HBAG)  
Web: <http://www.hbag.org>  
Phone (404) 763-2453; Email: [klass@hbag.org](mailto:klass@hbag.org)

Southface Energy Institute  
Web: [www.southface.org](http://www.southface.org)  
Phone: (404) 604-3663; Email: [efreedman@southface.org](mailto:efreedman@southface.org)

Georgia Environmental Facilities Authority  
Web: [www.gefa.ga.gov](http://www.gefa.ga.gov)  
Web: (404) 584-1077; Email: [jwilson@gefa.ga.gov](mailto:jwilson@gefa.ga.gov)

Disclaimer: The above list of resources and contacts is provided for informational purposes only. The Department is not responsible for the verification of individual DET Verifier certifications. Please contact the appropriate DET course provider to verify the certifications of any individuals performing the required DET testing services. Should you have any questions or require further assistance, please contact Bill Towson, DCA Program Coordinator, at (404) 679-3109 or [bill.towson@dca.ga.gov](mailto:bill.towson@dca.ga.gov).