

Tennessee Residential Energy Code - Duct and Envelope Testing Results*

Address: _____

Builder/Designer: _____

Phone: _____

Envelope Summary: 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)

Visual Inspection Option (may be conducted by an approved third-party instead of the BET test)

Visual Inspection Conducted by: _____ Phone: _____

AIR BARRIER AND INSULATION INSPECTION

Y-N-n/a	COMPONENT	CRITERIA
	Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier. Breaks or joints in the air barrier are filled or repaired. Air-permeable insulation is not used as a sealing material.
	Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed Attic access (except unvented attic), knee wall door, or drop down stair is sealed.
	Walls	Corners and headers are insulated. Junction of foundation and sill plate is sealed.
	Windows and doors	Space between window/door jambs and framing is sealed.
	Rim joists	Rim joists are insulated and include an air barrier.
	Floors (including above garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking. Air barrier is installed at any exposed edge of floor.
	Crawlspace walls	Insulation is permanently attached to walls. Exposed earth in unvented crawlspaces is covered with Class I vapor retarder with overlapping joints taped.
	Shafts, penetrations	Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space are sealed.
	Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.
	Garage separation	Air sealing is provided between the garage and conditioned spaces.
	Recessed lighting	Recessed light fixtures are airtight, IC rated and sealed to drywall. Exception—fixtures in conditioned space.
	Plumbing and wiring	Insulation is placed between outside and pipes. Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.
	Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.
	Electrical/phone box on exterior wall	Air barrier extends behind boxes or air sealed type boxes are installed.
	Common wall	Air barrier is installed in common wall between dwelling units.
	HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.
	Fireplace	Fireplace walls include an air barrier.

Mechanical Summary: Duct Tightness Verification (DTV)

DTV Test Conducted by: _____ Phone: _____

Tool used to conduct the duct tightness test: duct blower (**DB**), blower door subtraction method (**BDS**), or flow hood (**FH**).

Unless all ducts are located within conditioned space, must verify one of the following:

- Post-construction duct leakage to outdoors (**PCO**) is ≤ 8%,
- Post-construction total duct leakage (**PCT**) is ≤ 12%
- Rough-in total duct leakage (**RIT**) with air handler installed is ≤ 6%
- Rough-in total duct leakage with no air handler installed (**RITnah**) is ≤ 4%

% Duct Leakage Result = CFM₂₅ x 100 / Conditioned floor area served

System	Tool (DB, BDS, FH)	Test (PCO, PCT, RIT, RITnah)	CFM ₂₅	Area served (ft ²)	Result (%)
1					
2					
3					

*Note: This document to be posted on or in the electrical distribution panel.

Tennessee Residential Energy Code - Duct and Envelope Testing Results*

Address: 1234 Sample House Lane

Builder/Designer: Bill D. Home

Phone: 222-333-4444

Envelope Summary: Building Envelope Tightness (BET)

BET test conducted by: Joe Tester Phone: 222-555-6666

Fan Flow at 50 Pascals = 1,844 CFM₅₀ Total Conditioned Volume = 22,600 ft³

ACH₅₀ = CFM₅₀ x 60 / Volume = 4.9 ACH₅₀ (must be less than 7 ACH₅₀)

Visual Inspection Option (may be conducted by an approved third-party instead of the BET test)

Visual Inspection Conducted by: _____ Phone: _____

AIR BARRIER AND INSULATION INSPECTION

Y-N-n/a	COMPONENT	CRITERIA
	Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier. Breaks or joints in the air barrier are filled or repaired. Air-permeable insulation is not used as a sealing material.
	Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed Attic access (except unvented attic), knee wall door, or drop down stair is sealed.
	Walls	Corners and headers are insulated. Junction of foundation and sill plate is sealed.
	Windows and doors	Space between window/door jambs and framing is sealed.
	Rim joists	Rim joists are insulated and include an air barrier.
	Floors (including above garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking. Air barrier is installed at any exposed edge of floor.
	Crawlspace walls	Insulation is permanently attached to walls. Exposed earth in unvented crawlspaces is covered with Class I vapor retarder with overlapping joints taped.
	Shafts, penetrations	Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space are sealed.
	Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.
	Garage separation	Air sealing is provided between the garage and conditioned spaces.
	Recessed lighting	Recessed light fixtures are airtight, IC rated and sealed to drywall. Exception—fixtures in conditioned space.
	Plumbing and wiring	Insulation is placed between outside and pipes. Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.
	Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.
	Electrical/phone box on exterior wall	Air barrier extends behind boxes or air sealed type boxes are installed.
	Common wall	Air barrier is installed in common wall between dwelling units.
	HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.
	Fireplace	Fireplace walls include an air barrier.

Mechanical Summary: Duct Tightness Verification (DTV)

DTV Test Conducted by: Jane Tester Phone: 777-888-9999

Tool used to conduct the duct tightness test: duct blower (**DB**), blower door subtraction method (**BDS**), or flow hood (**FH**).

Unless all ducts are located within conditioned space, must verify one of the following:

- Post-construction duct leakage to outdoors (**PCO**) is ≤ 8%,
- Post-construction total duct leakage (**PCT**) is ≤ 12%
- Rough-in total duct leakage (**RIT**) with air handler installed is ≤ 6%
- Rough-in total duct leakage with no air handler installed (**RITnah**) is ≤ 4%

% Duct Leakage Result = CFM₂₅ x 100 / Conditioned floor area served

System	Tool (DB, BDS, FH)	Test (PCO, PCT, RIT, RITnah)	CFM ₂₅	Area served (ft ²)	Result (%)
1 Main	DB	PCO	165	2,300	7.2%
2					
3					

*Note: This document to be posted on or in the electrical distribution panel.