

Air Leakage/Blower Door Testing

Air leakage testing is required for all new residences and commercial buildings under the 2021 International Residential (IRC) and Energy Conservation (IECC) Codes.

General Rules:

Testing shall be conducted by an approved third party with a written report provided to the Building Official showing the test results at the appropriate pressure using the applicable standard (see below). If the first test fails, the tester shall recommend corrective measures to improve air tightness, then perform a second test after all corrections have been made. If the building still fails but has significantly improved its air tightness, the owner may request code modification approval from the Building Official by submitting both test results and an explanation of the corrective actions taken. Proper planning and attention to details of air barrier installation and air sealing of joints and penetrations at foundation, rough-in, insulation and finish construction stages should allow all buildings to pass code-required maximum leakage tests.

To be considered an “approved third party,” an air leakage tester must demonstrate knowledge and experience of air barrier installation, air leakage test procedures and protocols, through certification by a recognized organization such as RESNET (Residential Energy Services Network) or otherwise demonstrate their competence to the satisfaction of the Building Official. A partial list of approved third-party testers is on the back of this handout. This is not a list of “preferred contractors,” and you must do your homework in vetting anyone you choose to hire. Please check references and compare their experience, outcomes, and prices. Many Home Energy Raters (HERS) will perform air leakage testing as part of their overall energy ratings. Either a complete rating report including air leakage testing, or a report of a stand-alone test, will be acceptable to meet the testing requirement.

Commercial:

The building thermal envelope shall be tested in accordance with ASTM E 779 at a pressure differential of .3-inch water gauge (75 Pascals) or an equivalent method approved by the building official. The tested air leakage rate shall not exceed 0.40 cfm/ft² (.4 cubic feet per minute per total square footage of building perimeter).

Exceptions:

1. The building official *may* waive the air leakage testing requirement for buildings or portions thereof that are not fully enclosed and fully conditioned, such as warehouses and repair garages with overhead doors that are frequently open while in operation. Testing can be conducted with the overhead doors masked and taped.
2. Townhouses and condominiums may use the City of Fort Collins Protocol for New Multifamily Building Air Tightness Testing as an alternative test.

Residential:

Testing shall be conducted per RESNET/ICC 380, ASTM E779 or ASTM E1827 at a pressure differential of 0.2-inch water gauge (50 Pascals). Tested air leakage shall not exceed three (3) Air Changes per Hour (3 ACH50).

Approved Air Leakage (Blower Door) Testers in Larimer County

- ❖ Anderson Associates, Richard Anderson, 422 E. Oak St., Fort Collins CO 80524
andersonarch@aol.com (970) 484-0306
- ❖ Architectural Energy Corporation, 2540 Frontier Ave. Ste 100 Boulder CO 80301
www.archenergy.com (303) 459-7405
- ❖ Bestway Insulation, James Weingardt, 10855 Empire Rd., Lafayette, CO 80026
(303) 469-0808, www.bestwayinsulation.com
- ❖ Carbon Neutral Group Consulting, Mike Truitt, 1600 Crescent Dr. Fort Collins CO 80526
www.carbonneutralgroup.com (970) 204-9931
- ❖ Colorado Professional Inspections, 1780 Hyde Ct., Loveland CO 80538
www.coloradoprofessionalinspections.com (970) 430-1819
- ❖ Energy Logic, 309 Mountain Ave, Berthoud CO 80513 www.nrglogic.com (800) 315-0459
- ❖ Green Insight LLC, 917 E. Prospect Rd. Unit B, Fort Collins CO 80525
www.thegreeninsight.com (833) 476-8326
- ❖ Green Your Home, Colleen Locker, greenyourhomedenver@gmail.com (720) 628-7290
- ❖ Group 14 Engineering, Josh Marceau, jmarceau@group14eng.com, Sarah Hong,
shong@group14eng.com (303) 861-2070
- ❖ GS Services, Paul Higman, 2000 S. College Ave. Suite 308, Fort Collins CO 80525 phigman@gs-email.com (970) 219-6776
- ❖ L & L Insulation, Justin Heldenbrand, 401 N. Link Lane, Fort Collins, CO 80521
www.ll-insulation.com 970-817-4973
- ❖ NoCo Energy Solutions, Nate Gagliano, 4805 NCR 23E, Laporte CO 80535
www.nocoenergysolutions.com 310-6240
- ❖ PCD Engineering, 323 3rd Ave, Ste #100 Longmont, CO 80501, www.PCDEngineering.com
(303) 678-1108
- ❖ PIE Consulting & Engineering, 6275 Joyce Drive, Suite 200, Arvada, CO 80403
www.pieglobal.com (866) 552-5246
- ❖ Progressive Engineering, Greg Bowdish, greg@progressiveengineering.bix (970) 590-6059
- ❖ Scott Home Inspection, 3728 W County Road 10, Berthoud CO 80513
www.scotthomeinspection.com (970) 532-2424
- ❖ Sustainably Built, 1720 15th St., Boulder CO 80302 www.sustainablybuilt.com (303) 447-0237
- ❖ Terracon, Christopher X. Traynor, Denver/Fort Collins, www.terracon.com (303) 423-3300
- ❖ Timberline Insulation Inc., 4109 Ziegler Rd., Ft Collins CO 80525, (970) 888-1395,
john.timberlineinsulation@gmail.com

List is not exclusive. Air leakage testers certified by RESNET, Building Performance Institute, Air Barrier Association of America, or other approved agencies, may be added to this list by verifying credentials and experience to county Building Official.