The integrity of the building envelope is critical to the entire building’s performance. Fenestration products function as openings in the building envelope, therefore it is essential that windows and doors are weather tight and structurally sound. That’s why ATI offers testing services that evaluate performance characteristics such as air infiltration, water penetration, structural wind load, and hurricane and tornado resistance.

With over 40 years of experience and 14 laboratories conveniently placed across the U.S. and Canada, ATI conducts thousands of tests every year on fenestration and building envelope products. Whether it’s a small residential window or a massive horizontal sliding door, size is not an issue at ATI, our interior laboratory test walls reach 16 feet in height and 64 feet in width.

Data obtained through testing helps clients to evaluate performance and suitability, and ensure that their products will meet building design, building code, and product certification requirements.
ATI laboratories utilize transparent structural test walls, enabling easy observation of product testing, and quick identification of potential performance problems. With in-house fabrication and calibration shops, ATI designs, builds and maintains all their testing equipment to ensure it’s always functioning properly.

As an independent and accredited third party test laboratory, ATI is actively involved in developing test standards and provides customers with accurate, unbiased information to give them a clear understanding of performance-test results.

In addition to air, water and structural wind load, many variables affect the performance and service life of fenestration products and building materials. As part of the Complete Building Products Solution, ATI offers a comprehensive range of test services, including thermal, acoustics, durability and threat resistance.

Products Tested

Windows: awning, casement, single-hung, double-hung, horizontal sliding, mullions, skylights
Doors: single entry, swing and sliding patio, French, multiple panel, overhead
Walls: cladding, masonry, rain screen, EIFS, stucco, weather barriers, vents, louvers, SIPs, curtain wall, storm shutters

Test Methods

- AAMA 101 - Windows, Doors, Skylights
- ANSI 108/115 - Overhead Door Performance
- ASTM E283 - Air Infiltration
- ASTM E330 - Structural Performance
- ASTM E331 - Water Penetration, Static Air
- ASTM E514 - Water Penetration, Masonry
- ASTM E547 - Water Penetration, Cyclic Air
- ASTM E1886/E1196 - Hurricane Resistance
- ASTM E2357 - Air Leakage, Air Barrier Systems
- ASTM F588 - Forced Entry Resistance
- ICC 500/FEMA361 - Storm Shelter
- ICC-ES AC 17 AC17 - Skylights & Sloped Glazing
- NFRC 400 - Air Infiltration
- TAS 201 - Impact Testing
- TAS 202 - Static Air, Water, Structural Testing
- TAS 203 - Pressure Cycling

Other Related Services

BUILDING ENCLOSURE FIELD TESTING
CURTAIN WALL MOCK-UP TESTING
THERMAL TESTING
ACOUSTIC TESTING
BUILDING ENCLOSURE COMMISSIONING
BUILDING FORENSICS