Value

Measuring and understanding the performance of fenestration components and building materials are critical to manufacturers, contractors, designers, and owners. For thousands of materials, ATI offers over one thousand tests—and develops others as needed—to obtain accurate data, pass/fail or classifications ratings, and useful insights.

Materials Testing Fast Facts

- State-of-the-art facility houses over 10,000 square feet of environmentally controlled testing space.
- Dedicated laboratory performs over 1,200 different test methods as established by AAMA, ASTM, ICBO, SBCCI, BOCA, Metro-Dade County, IGCC, DIN, ISO, SAE, People’s Republic of China, Japanese Standards, and other appropriate administrators.
- Staffed by engineers, chemists and biologists.

Tests are applied to all types of fenestration products and building materials. Broad categories include:
- Doors
- Windows
- Hardware
- Concrete
- Stone
- Plastics/polymers
- Adhesives/sealants
- Paints/coatings
- Woodwork
- Metal
- Glass
- Anchors
- And more.
Innovations

ATI materials testing is performed in our new, state-of-the-art, environmentally controlled materials laboratory using the latest test equipment, which includes:

- Thermal conditioning ovens (from -200°F to +400°F, and +2000°F for ceramics)
- Xenon arc lamps for solar spectrum exposure
- Calorimeters
- Salt-fog and high-humidity chambers
- Fume hoods
- 25-ton load capacity universal test machine
- 125-ton load capacity concrete compression test machine
- Abrasion and drop-dart testers
- Heat flow plates

Insights and Possibilities

Most of our component and material evaluations take the form of pass/fail criteria or the assignment of a classification or rating. But our test data is also useful for determining modifications in product design and material selection, for assisting clients regarding suitability of materials and their applications, and for troubleshooting potential or existing problems. Our services include:

- Quality control and standard lab test reports
- Technical reports for structure examination and inspection and evaluation of materials status
- Statistical analysis of lab and field data, using computer software
- Consulting technical reports on problems, obstacles, and/or risks

Typical properties tested:

Physical compression
Flex
Tensile strength
Torsion
Stability
Friction
Abrasion
Modulus of rupture
Viscosity
Hardness
Gloss
Brittleness
Expansion/contraction
Freeze/thaw
Surface cleanability
Resistance to fire and chemicals
Resistance to peeling, fading, and staining
Accelerated weathering under UV, salt spray and alkali.

For more information on the value we can bring to your next project, visit www.archtest.com