



Air, water and structural chamber



Pre-proving assemblies prior to construction

AWS testing takes what can be costly guesswork out of the process of enhancing the building envelope. BETAC's AWS chamber is intended to stimulate innovation in the design and construction of building envelopes.

The AWS test chamber at BETAC allows building envelope details, windows and doors to be evaluated for airtightness, water penetration and structural deflection prior to their use in actual construction.

This means faster adoption of new and innovative building envelope components in Manitoba. Equally important, building professionals and students can participate in timely training activities that will increase the use of best practices for design and construction.

The Building Envelope Technology Centre (BETAC) houses a 12 ft. by 12 ft. air, water and structural (AWS) chamber that accommodates the construction and testing of wall and window assemblies to the following standard test methods:

Airtightness

ASTM E283, Standard Test Method for determining rate of air leakage through exterior windows, curtain walls and doors under specified pressure differences across the specimen

ASTM E1186, Standard practices for air leakage site detection in building envelopes and air barrier systems

Structural integrity

ASTM E330, Standard Test Method for structural performance of exterior windows, curtain walls and doors by uniform static air pressure difference

Static water penetration

ASTM Standard Test Method for field determination of water penetration of installed exterior windows, skylights, doors and curtain walls by uniform or cyclic static air pressure difference

ASTM E331, Standard Test Method for water penetration of exterior windows, skylights doors and curtain walls by uniform static air pressure difference

User Benefits

- Building owners - confirm performance requirements
- Architects/engineers - verify design concepts
- Material and product manufacturers - product development and demonstration, installation training
- Contractors - pre-construction mock-ups, training

BETAC – pushing the envelope.

To find out more or to visit our facilities, please contact:
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