



AIR & VAPOR BARRIER

Air Barrier Products Pass Tough ASTM E2357 Standards

What

Fire Resist Barritech VP, Fire Resist Barritech NP™, Barriseal® and CCW-705 air barrier products manufactured by Carlisle Coatings & Waterproofing (CCW) have passed independent lab tests certifying their reliability when used as part of full air barrier assemblies. The test followed tough industry standards set by ASTM E2357 *Standard Test Method for Determining Air Leakage of Air Barrier Assemblies*.

CCW Property	Results*
Fire Resist Barritech VP	Exceed Standard
Fire Resist Barritech NP	Exceed Standard
Barriseal	Exceed Standard
CCW-705	Exceed Standard

*Measured in L/s x m²

Why

The ASTM E2357 test provides a consistent method for building professionals to evaluate a full air barrier assembly. Prior to this standard, only the air barrier material could be tested.

This standard calls for testing each of the elements that make up the air barrier assembly—materials, components and accessories. It gives evaluators a more accurate picture of how a fully sealed air barrier assembly withstands simulated wind load conditions that are likely to cause leaks in real-world situations.

“Air barrier assembly testing in accordance with ASTM E2357 has become a critical requirement in the air barrier industry. ABAA now requires the manufacturers to prove performance of air barriers using the ASTM E2357 test protocol. In addition, more and more project specifications require ASTM E2357 testing as part of the contract requirements. The ASTM E2357 test tells the design professional that the materials, components and accessories are actually going to work together and stay sealed during the operation of the building.”

**—Mr. Laverne Dalgleish, Executive Director,
Air Barrier Association of American (ABAA)**



CCW Barritech VP Mockup (Specimen #1)

During testing, the CCW Air Barrier Products successfully withstood:

- 71 miles-per-hour sustained wind loads;
- 80 miles-per-hour cyclic wind loads;
- 100 miles-per-hour gust wind loads; and
- 115 miles-per-hour wind pressure loads.

Both ABAA (Air Barrier Association of America) and the ASHRAE 90.1 Standard require that an air barrier assembly provide an air leakage rate not to exceed 0.2 L/s x m² @ 75 Pa when tested. Each of the CCW Air Vapor Products tested exceeded the standards measured.

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How

To mimic real-world commercial structures, evaluators constructed two exterior wall mock-ups and installed full air barrier assemblies. Specimen 1 was a simple wall assembly with sheathing joints. Specimen 2 was constructed with sheathing joints; roof and foundation tie-ins; brick ties, window openings; and penetrations by electrical outlets, pipes and ductwork.

Each of the tie-ins and penetrations were fully sealed and flashed to the air barrier assembly to ensure they could withstand the simulated conditions required by the ASTM E2357 test.

During testing, each wall mock-up was exposed to positive and negative sustained wind loads of 600 Pa (71 mph); cyclic loads of 800 Pa (80 mph); gust loads of 1200 Pa (100 mph); and wind pressure loads of 1440 Pa (115 mph). Evaluators measured the structures for air infiltration and ex-filtration before, during and after the pressure cycling.

Products Used

Barritech VP Test	Barritech NP Test	Barritech Test	CCW-705 Test
Liquifiber™ Reinforcement Membrane	Liquifiber Reinforcement Membrane	CCW 201 2-part polyurethane	CCW 201 2-part polyurethane
Acrylic Sealant	Acrylic Sealant	CCW-702 Adhesive	CCW-702 Adhesive
		Barritape™ Joint Reinforcement Tape	CCW-705 Self-Adhered Strips
		CCW-705 Self-Adhered Strips	LM-800 XL Liquid Mastic

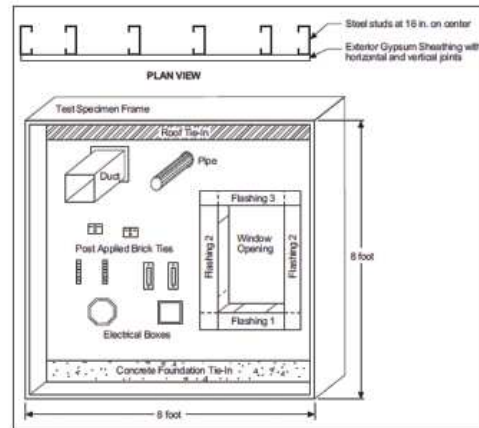
The Bottom Line

Independent laboratory tests prove Fire Resist Barritech VP, Fire Resist Barritech NP, Barriseal and CCW-705 air barrier products manufactured by Carlisle Coatings and Waterproofing (CCW) exceed industry standards for air barrier assemblies.



CCW-705 Self-Adhering Membrane Mockup (Specimen #2)

ASTM E2357 Test Assembly



Fluid-Applied, Vapor-Permeable Air Barrier

Barritech VP is a fluid-applied membrane applied to exterior wall assemblies where it functions as an air barrier and a water resistive barrier.

Fluid-Applied Air & Vapor Barriers

Fire Resist Barritech NP is a fluid-applied membrane applied to exterior wall assemblies where it functions as an air, vapor, and water resistive barrier.

Barriseal-S is a water-based asphalt emulsion modified with a blend of synthetic polymers and special additives. Barriseal-S is dispensed in tandem with Barricure, a non-corrosive, chloride-free deliquescent salt solution.

Barriseal-R is a water-based asphalt emulsion modified with a blend of synthetic polymers and special additives. Barriseal-R is applied by roller or brush, and air-dries to a rubber-like consistency.

Self-Adhering Air & Vapor Barrier

CCW-705 Air & Vapor Barrier is a 40-mil-thick composite membrane consisting of a rubberized asphalt adhesive laminated to a tough, cross-laminated HDPE film.