

AIR BARRIER SOLUTIONS



WHAT IS AN AIR BARRIER SOLUTION?

An air barrier system must be continuous. The system consists of materials (individual components), assemblies (such as windows) and connections between them. Components of the air barrier system must be connected in a manner that is capable of resisting positive and negative loads and remain durable.



An air barrier system (red line) must be continuous

A product is not an air barrier on its own, it must be part of a continuous system.

Research has demonstrated that air leakage through the building envelope can transport exponentially more moisture through the building envelope than water vapor by diffusion. Controlling air flow can reduce problems such as corrosion, wall component deterioration and mold growth. Other benefits are improved energy efficiency and indoor air quality over the life of the building.

A 2005 NIST¹ study showed that an effective air barrier can reduce a building's energy costs by as much as 40% and electrical costs by more than 25%.

VAPROSHIELD AFFORDABLE AIR BARRIER SOLUTIONS



Save Energy

Air barrier technology reduces energy consumption.



Affordable

VaproShield Air Barrier Solutions are competitively priced and offer labor saving features.



All Climate Construction

Install VaproShield materials year round and in all climates; 0° to 120°F, (-17° to 49°C).



Compatible Systems

VaproShield materials can be installed on most substrates and building types.



Healthy Buildings

Zero VOC's, no primers, recyclable.

VaproShield Vapor Permeable Air Barrier Solutions

*WRAP*SHIELD SA[®] SELF-ADHERED Water Resistive Vapor Permeable Air Barrier Membrane and accessories pass the rigorous ASTM E2357 test, the assembly recorded an air leakage difference of less than 0.01 cfm/ft², far exceeding the acceptable air leakage of .04 cfm/ft². Other mechanically attached VaproShield Membranes² have been tested to ASTM 2178 and competitively demonstrate impressive performance as a primary air barrier system component.

Affordable Air Barrier Membranes



VaproShield membranes, when installed as part of an air barrier system, prevent lateral air movement, enhancing thermal performance.

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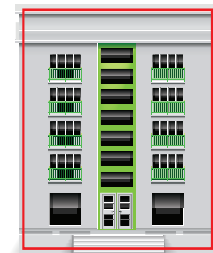
Compatibility



Our accessories are compatible with multiple window types, sealants and adhesives saving on materials and labor installation.

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Result



High Performance Air Barrier System tested to ASTM E2357 standards.

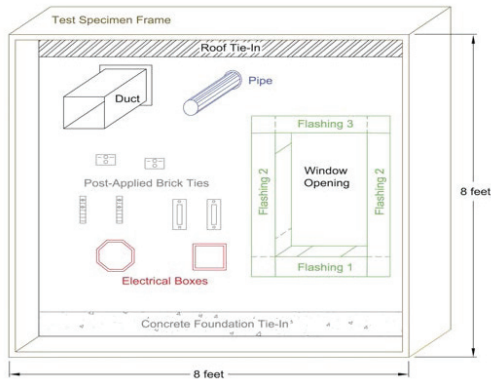


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UNDERSTANDING AIR BARRIER TESTING

ASTM E2357 Air Leakage of Air Barrier Assemblies



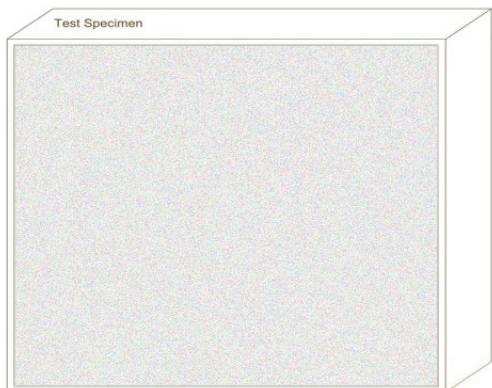
Standard

Measures air permeance (leakage) of air barrier materials/accessories when combined into a wall assembly with pipe penetrations, brick ties, electrical boxes, foundation transitions, lap seams and flashings.



Bottom Line: ASTM E2357 is a more REALISTIC test method emulating installed materials on a building.

ASTM E2178 Air Permeance of Building Materials



Standard

- Only measures air permeance (leakage) of an air barrier material.



Contact VaproShield to learn more about Affordable Energy Saving Air Barriers. We provide technical assistance and have representatives throughout the US and Canada who offer knowledge and expertise about building envelope design and familiarity with local building codes and requirements.

1. National Institute of Standards and Technology (NIST), NISTIR 7238 Investigation of the Impact of Commercial Building Envelope Airtightness on HVAC Energy Use

2. WRAPSHIELD, REVEALSHIELD

