

Grace Construction Products

PERM-A-BARRIER®

AIR BARRIER SYSTEMS


As advanced as your design.



GRACE

No matter what your design challenge, we've got you covered.

The key to an effective air barrier strategy is selecting products with proven performance, together with the flexibility to integrate seamlessly with your design.



Grace has you covered. We've been a leader in air barrier systems for more than 20 years. Our Perm-A-Barrier® Fully-Adhered Air Barrier Systems provide comprehensive solutions for stopping air, water and if needed, vapor penetration in every wall, corner and seam. Perm-A-Barrier's unique technology not only stops air leakage, but water infiltration as well — the key to protecting the long-term performance of your building. And selecting the right system for your design is simple and precise with our Perm-A-View™ modeling technology.

Whether your air barrier requirement is for a self-adhered sheet or a fluid-applied membrane, permeable or impermeable, there's a Perm-A-Barrier system that combines superior performance and ease of application.

Simplify your air barrier design and installation, with Perm-A-Barrier Systems.

GRACE PERM-A-BARRIER®

Fully-Adhered Air Barrier Systems



**Smart design starts
with a smart
air barrier strategy.**

Selecting the right air barrier system can have a dramatic impact on the performance, durability and energy efficiency of your building. Air leakage and the resulting moisture accumulation can lead to serious problems — for buildings and for their occupants:

- Wasted energy
- Moisture damage
- Mold and mildew
- Poor indoor air quality

Cover yourself with an effective barrier.

Protect your building — and yourself — with an effective, continuous air barrier around the entire building envelope, from foundation to roof. The right air barrier system can:

- Increase energy efficiency by up to 39%*
- Extend building life by minimizing moisture accumulation
- Improve indoor air quality and protect occupant health

These advantages have made air barriers crucial elements in building design. In fact, building code officials throughout North America have instituted or are drafting building codes requiring continuous air barriers to eliminate air leakage entirely.

The solution is in the system.

To deliver optimum benefits, an effective air barrier system must:

- Be fully bonded to transmit wind loads directly to substrate and prevent water migration
- Provide continuous coverage across varying substrates to assure seamless air barrier protection
- Feature integrated details across the entire building envelope
- Deliver waterproof performance to assure long-term durability
- Offer flexibility in design for varying wall configurations and climatic conditions

* Source: NIST Report, “Investigation of the Impact of Commercial Building Envelope Air Tightness on HVAC Energy Use,” June 2005



Grace is dedicated to helping architects and building owners design effective building envelopes through our exclusive Perm-A-View™ modeling service.

The Perm-A-View analysis provides a visual, dynamic simulation of air, moisture and heat transport through a multi-layer exterior wall exposed to natural weather. This dynamic modeling helps quantify factors such as heating and cooling loss, as well as the mold growth and corrosion risks to moisture-sensitive components of the wall.

Perm-A-View helps provide the information and the insight needed to optimize your wall design and guide your selection of air and vapor barriers.



PERM-A-BARRIER®
VP / VP LT (LOW TEMP)

Fluid-applied, vapor-permeable, "breathable" air barrier membrane



PERM-A-BARRIER®
VPS

Self-adhering, vapor-permeable air barrier sheet membrane



PERM-A-BARRIER®
LIQUID

Flexible, fluid-applied, impermeable air and vapor barrier membrane



PERM-A-BARRIER®
WALL MEMBRANE

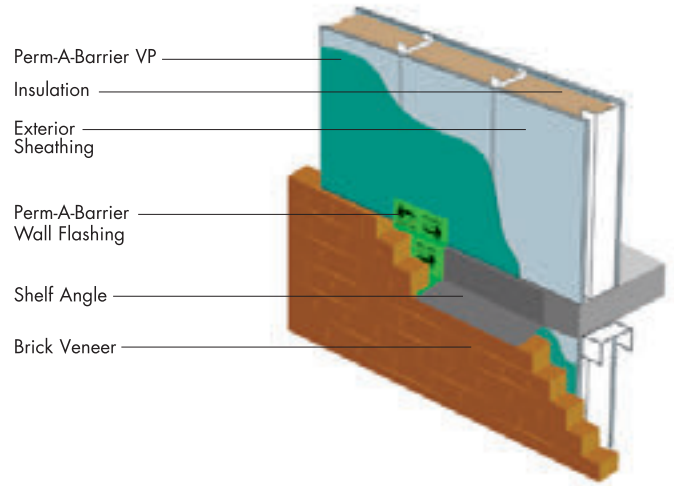
Self-adhering, impermeable air and vapor barrier sheet membrane



PERM-A-BARRIER®
VP / VP LT (LOW TEMP)

Single-component, fluid-applied, acrylic, vapor-permeable air barrier cures to form a resilient, monolithic, fully bonded elastomeric sheet that allows efficient vapor diffusion—yet is impermeable to liquid water.

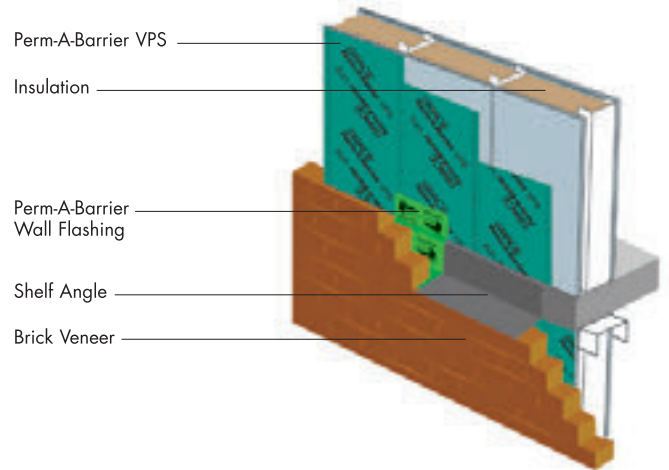
- “Breathable” membrane allows water vapor to escape, avoiding damaging condensation
- Conforms to complex and irregular shapes and geometries
- Spray application provides quick coverage with minimal substrate preparation
- Perm-A-Barrier VP LT allows installation during cold weather



PERM-A-BARRIER®
VPS

Vapor permeable sheet-applied air barrier membrane consisting of a “breathable” carrier film with a specially designed adhesive.

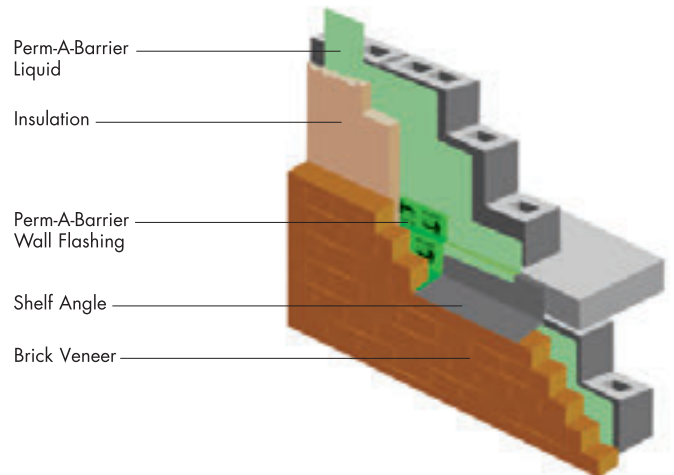
- Self-adhering for easy application
- Strong adhesion to common construction substrate for long-lasting protection
- Factory made sheet ensures constant, non-variable site application



PERM-A-BARRIER®
LIQUID

Two-component, synthetic rubber, cold-applied liquid membrane cures to form a resilient, monolithic, fully bonded, elastomeric sheet.

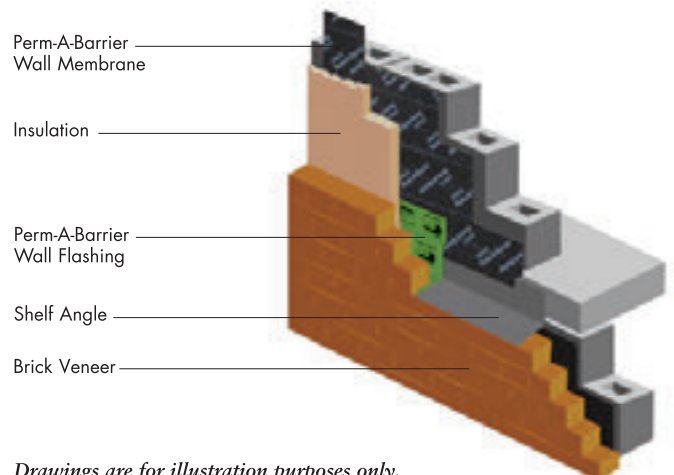
- 100% solids technology provides a seamless air and vapor barrier
- Conforms to complex and irregular shapes and geometries
- Spray application provides quick coverage with minimal substrate preparation



PERM-A-BARRIER®
WALL MEMBRANE

40 mil rubberized asphalt sheet membrane provides an impermeable air, vapor and water barrier on concrete, masonry, gypsum, and wood substrates.

- Self-adhering for easy application with no mixing
- Robust, self-reinforced barrier for long-lasting protection
- Factory controlled thickness ensures continuity across entire wall surface



Drawings are for illustration purposes only.

Perm-A-Barrier® VP is the ideal choice for applications that demand protection from air infiltration, while allowing water vapor to escape without condensing in wall structures.



Perm-A-Barrier® VPS enables easy, painless installation of a long-lasting “breathable” air and water protection.



Perm-A-Barrier® Liquid is the choice for surfaces with complex, irregular shapes and surfaces, providing a seamless barrier with the flexibility of spray application.



Perm-A-Barrier® Wall Membrane enables rapid, easy installation of a continuous, self-adhered impermeable air and vapor barrier.



Selecting Your System: Air Barrier Basics

At Grace, we understand that every building is unique, with its own air barrier challenges. That's why we offer a range of products, allowing you to select the system that meets your specific needs and conditions.

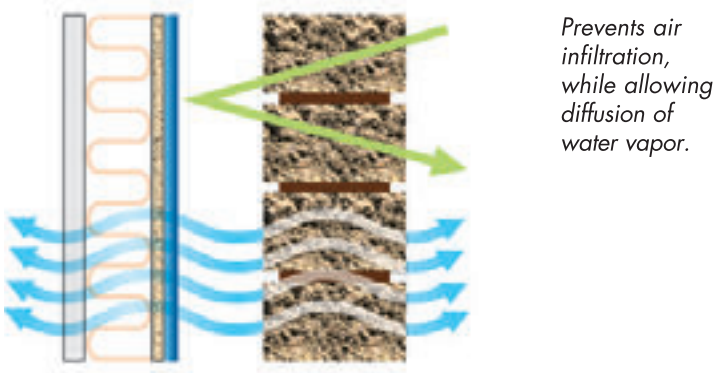
With so many choices, selecting the right system can be challenging. Grace has the expertise and the tools to analyze your design conditions and help you select the ideal air barrier system for your building.

Permeable or Impermeable?

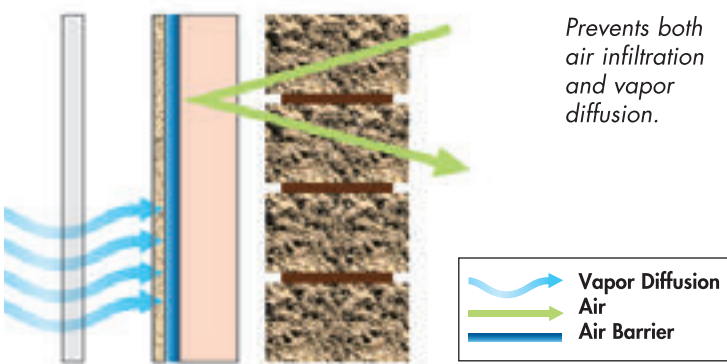
Both permeable and impermeable barriers resist air leakage. But permeable barriers are “breathable,” designed to allow water vapor to pass through the building envelope instead of condensing in the wall cavity.

The choice of permeable versus impermeable depends on a range of factors — including climatic conditions specific to your region, wall design, insulation placement and interior conditioning issues.

Vapor Permeable



Vapor Impermeable



Self-Adhered Sheet or Fluid-applied Membrane?

The choice of self-adhered sheet or fluid-applied membrane will depend on a variety of factors, including wall shape and details, substrate, and available equipment and labor.

Sheet

- Factory-controlled thickness
- Robust, self-reinforced
- No mixing or specialist equipment

Fluid-applied

- Seamless
- Good for complex shapes and geometries
- Quick coverage with spray
- Minimal substrate preparation

What is the correct thickness?

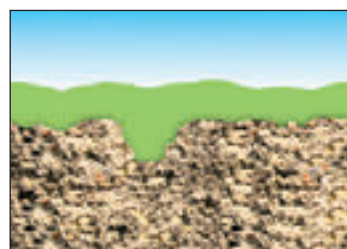
Dry film thickness of a fluid-applied membrane is critical to air barrier effectiveness. To ensure a continuous air barrier, the dry film thickness must be sufficient to cover all high and low points of the substrate. This becomes especially important on porous, irregular substrates such as concrete block.

Specifying the appropriate dry film thickness of a fluid-applied membrane is critical to ensuring continuous coverage, and proper building envelope performance.

Magnified view of substrate



Insufficient dry film thickness may produce “thin spots” and voids in the membrane, which will affect air barrier performance.



Specifying proper dry film thickness ensures proper air barrier performance.



GRACE PERM-A-BARRIER®

Fully-Adhered Air Barrier Systems

- *Perm-A-Barrier® VP / VP LT (Low Temp)*
- *Perm-A-Barrier® VPS*
- *Perm-A-Barrier® Liquid*
- *Perm-A-Barrier® Wall Membrane*
- *Perm-A-Barrier® Wall Flashing*
- *Perm-A-Barrier® Detail Membrane*
- *Perm-A-Barrier® Aluminum Flashing*

To learn more about Perm-A-Barrier Air Barrier Systems, or for assistance selecting the right solutions for your project, contact Grace today.

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Grace supplies products to more than 120 countries worldwide, through its plants and facilities in more than 40 countries, supported by a team of almost 6,000 people.

Key regional offices include:

UK (London), France (Paris), Italy (Milan), Belgium (Brussels), Poland (Warsaw), Turkey (Istanbul), U.A.E. (Dubai), Saudi Arabia (Dammam), India (Delhi), China (Shanghai, Hong Kong), Singapore, South Korea (Seoul), Australia (Sydney), USA (Boston, Chicago, San Francisco), Brazil (Sao Paulo) and many more locations globally.

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