

PERM-A-BARRIER® DETAIL MEMBRANE

Self-adhesive, rubberized asphalt/polyethylene detail membrane for air and vapor barrier applications

Description

Perm-A-Barrier® Detail Membrane is ideal for protecting and sealing critical areas of the building superstructure from the damaging effects of the elements. By minimizing air and water vapor flow through the building exterior at transition areas, Perm-A-Barrier Detail Membrane:

- Seals transition and detail areas to provide a continuous air barrier
- Prevents premature deterioration of the building envelope

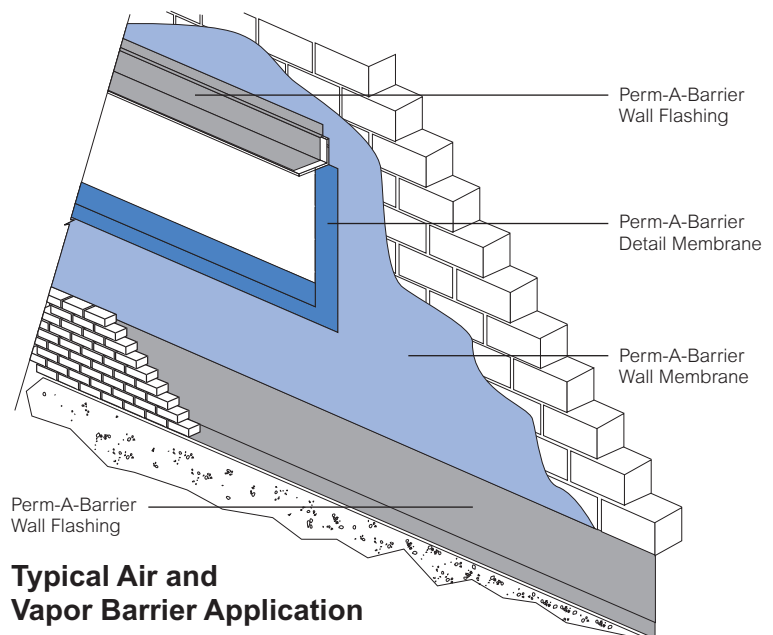
Advantages

- **Fully bonded**—transmits wind loads directly to the substrate
- **Waterproof and impermeable to moisture**—impermeable to the passage of liquid water and water vapor

- **Air tight**—exceeds CCMC requirements for air barrier membranes and complies with Massachusetts State Energy Code
- **Cross laminated film**—provides dimensional stability, high tear strength, puncture and impact resistance
- **Cold applied**—no flame hazard; self-adhesive overlaps ensure continuity
- **Flexible**—accommodates minor settlement and shrinkage movement
- **Controlled thickness**—factory made sheet ensures constant, non-variable site application
- **Aggressive, conformable adhesive**—allows self-sealing around mechanical fasteners
- **Wide application window**—Perm-A-Barrier Detail Membrane surface and ambient temperatures at 25°F (-4°C) and above

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Typical Air and Vapor Barrier Application

Drawings are for illustration purposes only. Please refer to graceconstruction.com for specific application details.

System Components

- **Perm-A-Barrier Wall Membrane**—for use at temperatures above 40°F (5°C)
- **Perm-A-Barrier Low Temperature Wall Membrane**—low temperature grade for use at temperatures between 25°F (-4°C) and 60°F (16°C)
- **Perm-A-Barrier Liquid**—two component synthetic rubber, cold vulcanized fluid-applied membrane
- **Perm-A-Barrier Wall Flashing**—self-adhesive, rubberized asphalt/polyethylene flashing for thru-wall applications
- **Perm-A-Barrier WB Primer**—high tack, water-based primer for use with Perm-A-Barrier Wall Membrane and Perm-A-Barrier Low Temperature Wall Membrane on cementitious and exterior gypsum wallboards
- **Bituthene® Primer B2**—used to prime green concrete or damp substrates
- **Bituthene Primer B2 LVC**—low VOC primer used to prime green concrete or damp surfaces
- **Bituthene Mastic Trowel Grade**—rubberized asphalt mastic for sealing patches, terminations, brick ties, etc.
- **Bituthene Liquid Membrane**—two component, trowel grade, asphalt modified urethane for sealing patches, terminations, brick ties, etc.

Installation

Safety

Perm-A-Barrier products must be handled properly. Vapors from the mastic and solvent-based primer are harmful and flammable. For these products, the best available information on safe handling, storage, personal protection, health and environmental considerations has been gathered. Refer to product label and Material Safety Data Sheet before use. All users should acquaint themselves with this information prior to working with the material. Carefully read detailed precaution statements on the product labels and MSDS before use. MSDSs can be obtained from our web site at graceconstruction.com or by contacting us toll free at 866-333-3SBM (3726).

Surface Preparation

Surface must be smooth, clean, dry and free of voids, spalled areas, loose aggregate, loose nails, sharp protrusions or other matter that will hinder the adhesion or regularity of the wall membrane installation. Clean loose dust or dirt from the surface to which the detail membrane is to be applied by wiping with a clean, dry cloth or brush.

If the substrate is damp, allow to dry or use Bituthene Primer B2 or Bituthene Primer B2 LVC to prepare the area to receive the membrane. DO NOT apply any primer to Perm-A-Barrier Detail Membrane.

Temperature

Perm-A-Barrier Detail Membrane may only be applied in dry weather when air and surface temperatures are above 25°F (-4°C).

Application

Priming—Perm-A-Barrier WB Primer is a water-based primer which imparts an aggressive, high tack finish on the treated substrate. It is packaged ready to use and is specifically designed to facilitate tenacious adhesion of Perm-A-Barrier Wall Flashing, Wall Membrane and Detail Membrane to glass mat surfaces and exterior gypsum boards such as DensGlass Gold®. Apply Perm-A-Barrier WB Primer by roller at a coverage rate of 250–350 ft²/gal (6–8 m²/L). Allow to dry for a minimum of 1 hour (longer at low temperatures).

Detail Membrane Application

Pre-cut Perm-A-Barrier Detail Membrane to easily handled lengths. Peel release paper from roll to expose rubberized asphalt and carefully position tape against substrate. Press firmly into place with a steel hand roller or the back of a utility knife as soon as possible, fully adhering the tape to the substrate to prevent water from migrating under the Perm-A-Barrier Detail Membrane. Overlap adjacent pieces 2 in. (51 mm) and roll overlap with a steel hand roller.

Perm-A-Barrier Wall Membranes and Wall Flashing—Apply a bead of Bituthene Mastic along all laps, seams, top edges, cuts and penetrations and trowel into place.

Perm-A-Barrier Liquid—If Perm-A-Barrier Liquid is more than 7 days old, priming may be necessary. Refer to Technical Letter 9 for more information. Apply a bead of Bituthene Liquid Membrane along all laps, seams, top edges, cuts and penetrations and trowel into place.

No reglet is necessary when installing Perm-A-Barrier Detail Membrane to vertical surfaces. Complete installation instructions and details are available upon request.

If wrinkles develop, carefully cut out affected area and replace in similar procedure outlined above. The repair piece must be pressed into place with a hand roller as soon as possible to ensure continuous and intimate contact with the substrate.

Membrane Protection

Perm-A-Barrier Detail Membrane must be protected from damage by other trades or construction materials.

Storage and Handling Information

All materials must be protected from rain and physical damage. Pallets of Perm-A-Barrier Detail Membrane must not be double stacked on the job site. Provide cover on top and all sides, allowing for adequate ventilation. Store membrane where temperatures will not exceed 90°F (32°C) for extended periods. All products must be stored in a dry area away from high heat, flames or sparks. Store only as much material at point of use as is required for each day's work.

Limitations

Perm-A-Barrier membrane systems must not be applied in areas where they will be permanently exposed to UV light and must be covered within a reasonable amount of time, not to exceed 30 days.

Warranty

Perm-A-Barrier products are warranted to be free of defects in manufacture for a period of 5 years. Material will be provided at no charge to replace any defective product.

Technical Service

Support is provided by full-time technically trained Grace field sales representatives and technical service personnel, backed by a central research and development technical services staff.

Supply

Product	Unit of Sale	Approximate Coverage	Weight	Palletization
Perm-A-Barrier Detail Membrane —6 in. (152 mm) —9 in. (225 mm) —12 in. (305 mm)	6 rolls 4 rolls 3 rolls	75 linear ft per roll 75 linear ft per roll 75 linear ft per roll	11 lbs/roll 16 lbs/roll 22 lbs/roll	25 cartons (150 rolls) per pallet 25 cartons (100 rolls) per pallet 25 cartons (75 rolls) per pallet
Perm-A-Barrier Wall Membrane	1 roll	225 ft ² (20.9 m ²) per roll 3 x 75 ft (0.9 x 25 m) roll	67 lbs/roll	25 cartons (25 rolls) per pallet
Perm-A-Barrier Low Temperature Wall Membrane	1 roll	225 ft ² (20.9 m ²) per roll 3 x 75 ft (0.9 x 25 m) roll	67 lbs/roll	25 cartons (25 rolls) per pallet
Perm-A-Barrier Wall Flashing —12 in. (305 mm) —18 in. (457 mm) —24 in. (610 mm) —36 in. (914 mm)	3 rolls 2 rolls 1 roll 1 roll	75 linear ft per roll 75 linear ft per roll 75 linear ft per roll 75 linear ft per roll	25 lbs/roll 37.5 lbs/roll 55 lbs/roll 75 lbs/roll	25 cartons (75 rolls) per pallet 25 cartons (50 rolls) per pallet 35 cartons (35 rolls) per pallet 25 cartons (25 rolls) per pallet
Bituthene Mastic—5 gal pail	1 pail	approx. 120 ft ² at 60 mils	54 lbs/pail	36 pails per pallet
Bituthene Mastic—30 oz tube	12 tubes	approx. 30 linear ft x ¼ in. bead	32 lbs/carton	72 cartons (864 tubes) per pallet
Perm-A-Barrier WB Primer—5 gal pail	1 pail	250–350 ft ² /gal (6–8 m ² /L)	45 lbs/pail	24 pails per pallet
Bituthene Primer B2—5 gal pail	1 pail	250–350 ft ² /gal (6–8 m ² /L)	44 lbs/pail	48 pails per pallet
Bituthene Primer B2 LVC—5 gal pail	1 pail	325–425 ft ² /gal (7.5–10 m ² /L)	44 lbs/pail	48 pails per pallet

Physical Properties

Property	Perm-A-Barrier Detail Membrane	Test Method
Thickness	3/64 in. (1 mm)	ASTM D3767 method A
Minimum tensile strength, membranes	400 psi (2.8 MPa)	ASTM D412 die C modified
Minimum tensile strength, film	5000 psi (34.5 MPa)	ASTM D412 die C modified
Minimum elongation, to failure of rubberized asphalt	200%	ASTM D412 die C modified
Pliability, at 180° bend over 1 in. (25 mm) mandrel	Pass at -25°F (-32°C)	ASTM D1970
Crack cycling, 1/8 in. (3.2 mm) at -25°F (-32°C)	Unaffected	ASTM C836
Minimum puncture resistance, membrane	40 lbs (178 N)	ASTM E154
Lap peel adhesion at minimum application temperature	4 lbs/in. (700 N/m width)	ASTM D1876 modified
Maximum permeance to water vapor transmission	0.05 perms/(Pa.s.m ²) (2.9 ng)	ASTM E96 method B
Air permeance ¹	0.0002 cf/min/ft ² (<0.001 L/s/m ²)	ASTM E2178
Air permeance of in-place membrane ²	No change in air permeance value	ASTM E330
Water absorption (weight gain at 24 hours)	0.1%	ASTM D570

Footnote:

1. Air permeance measured at a pressure differential of 1/64 in. (68 Pa) Hg.
2. Air permeance measured at a pressure differential of 1/64 in. (68 Pa) Hg after wall being subjected to a negative 5/64 in. (3014 Pa) Hg pressure difference for 10 seconds.

www.graceconstruction.com

For technical assistance call toll free at 866-333-3SBM (3726)

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