

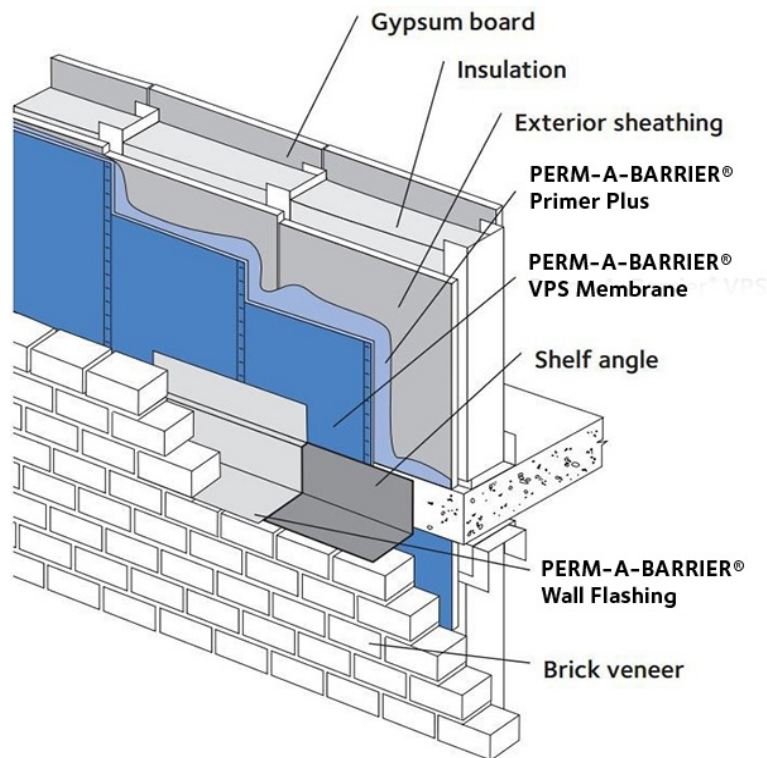
PERM-A-BARRIER[®] VPS (US Version)

Self-adhering vapor permeable air and water barrier membrane

Product Description

GCP Applied Technologies (“GCP”) PERM-A-BARRIER[®]VPS (Vapor Permeable Sheet) membrane is a vapor permeable air and water barrier membrane consisting of a proprietary breathable carrier film with a specially designed adhesive. PERM-A-BARRIER[®]VPS membrane provides superior protection against the damaging effects of air and water ingress on building structures. It creates an effective barrier against air infiltration and exfiltration, which reduces associated energy loss and condensation problems through the building envelope.

PERM-A-BARRIER[®]VPS membrane is vapor permeable for use in wall assemblies requiring a “breathable” characteristic. As a vapor permeable membrane, it permits the diffusion of water vapor that may otherwise condense in the wall structure. PERM-A-BARRIER[®]VPS membrane is impermeable to liquid water, which also allows it to act as a water drainage plain.



Typical Vapor Permeable Air Barrier Application

Drawings are for illustration purposes only.

Please refer to gcpat.com/construction for specific application details.

Advantages

- Fire Resistant—meets NFPA 285 as part of various wall assemblies
- Air tightness—protects against air passage and associated energy loss
- Vapor permeable—specifically designed to be a “breathable” membrane helps minimize moisture from being trapped in the wall cavity by allowing walls the ability to dry
- Water resistant—resists wind driven rain
- Self-adhered—self adhesion to primed surfaces eliminates the need for mechanical fasteners
- Controlled thickness—factory made sheet ensures constant, non-variable thickness at site application
- Lightweight—allows for easy handling and installation
- Flexible—conforms and bonds tightly to inside and outside corners following exterior building profiles
- Strong adhesion—forms a tenacious bond to prepared construction substrates such as plywood, oriented strand board (OSB), block, masonry and exterior gypsum boards
- Compatible with GCP PERM-A-BARRIER® Flashing Systems

System Components

Membrane

PERM-A-BARRIER®VPS membrane — is designed for use on above-grade walls at installation temperatures above 40 °F (5 °C)

Ancillary Products

(The most current Product Data Sheets and relevant supply information can be found at gcpat.com)

- PERM-A-BARRIER®Primer Plus — Water-based vapor permeable primer used to facilitate tenacious adhesion of PERM-A-BARRIER®VPS to the substrate.
- PERM-A-BARRIER®Wall Flashing — heavy duty, fully-adhered membrane for throughwall flashing detailing
- PERM-A-BARRIER®Detail Membrane — flexible, fully-adhered membrane for detail flashing areas
- BTUTHENE®Liquid Membrane — two-component, elastomeric liquid and sealant applied detailing compound used for details and terminations
- BITUTHENE®Mastic — rubberized asphalt-based mastic and sealant used for details and terminations

Limitations of Use

- Approved uses only include those uses specifically detailed in this Product Data Sheet and other current Product Data Sheets that can be found at gcpat.com
- PERM-A-BARRIER®VPS Membrane is not intended for any other use. Contact GCP Technical Services where any other use is anticipated or intended.
- PERM-A-BARRIER®VPS Membrane must not be applied in areas where it will be permanently exposed to direct sunlight. PERM-A-BARRIER®VPS Membrane must be covered within 150 days of installation. Refer to Technical Letter TL-0019, Exposure Guidelines for Perm-A-Barrier Self-Adhered Membranes.
- Maximum In Service Temperature (as installed) is 160 °F (71 °C)

Safety and Handling Information

Read and understand the product label and Safety Data Sheet (SDS) for each system component. All users should acquaint themselves with this information prior to working with the products and follow the precautionary statements. SDSs can be obtained by contacting your local GCP representative or office, by calling GCP toll free at 1-866-333-3SBM (3726) and in some cases from our web site at gcpat.com.

Storage

- All materials must be protected from rain and physical damage. Pallets of PERM-A-BARRIER®VPS product must not be double stacked on the job site. Store off the ground and 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.

Installation

Technical Support, Details and Technical Letters

The most up to date detail drawings and technical letters are available at gcpat.com. For complete application instructions, please refer to the current GCP Applied Technologies Contractor Handbook and Literature on (www.gcpat.com). Documents in hardcopy as well as information found on websites other than www.gcpat.com may be out of date or in error. Before using this product it is important that information be confirmed by accessing www.gcpat.com and reviewing the most recent product information, including without limitation Product Data Sheets and Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations. Please review all materials prior to installation of PERM-A-BARRIER®VPS Membrane. For technical assistance with detailing and problem solving please call toll-free at (866) 333-3SBM (3726).

Temperature Limitation

- PERM-A-BARRIER®VPS membrane may be applied only onto dry substrates and when air and surface temperatures are above 40 °F (5 °C) PERM-A-BARRIER®Primer Plus product is required on all substrates to receive PERM-A-BARRIER®VPS membrane
- For application above 20 °F (-6 °C) and below 40 °F (5 °C) contact your GCP representative.
- Maximum In Service Temperature 160 °F (71 °C)

Surface Preparation

Surface must be smooth, clean, dry to the touch and free of voids, spalled areas, loose aggregate, loose nails, sharp protrusions or other matter that might hinder the adhesion or regularity of the wall membrane installation. Clean loose dust or dirt from the surface to which the wall membrane is to be applied by wiping with a clean, dry cloth or brush. OSB and plywood must have moisture content below 12%.

Application

PERM-A-BARRIER®Primer Plus is required on all surfaces to which PERM-A-BARRIER®VPS Membrane is to be applied. Apply PERM-A-BARRIER®Primer Plus product by air spray, brush or roller application. Allow the product to dry until surface becomes tacky. Drying times may vary depending on temperature and humidity conditions. Refer to PERM-A-BARRIER®Primer Plus Product Data Sheet for installation recommendations. Also review technical letter TL-0002 Substrate Preparation for Application of PERM-A-BARRIER®Products to Glass-Mat Faced Gypsum Sheathing at gcpat.com for the specific priming requirements on all glass-mat faced sheathing products.

Membrane Application

Cut membrane into easily handled lengths. For surfaces without pre-existing in place penetrations (masonry anchors, ties etc.) apply membrane horizontally or vertically to properly primed wall substrate, beginning at the base. All subsequent side and end laps must maintain a minimum overlap of 2 in. (51 mm). All horizontal laps must be applied in a shingle/water shedding configuration.

For conditions with existing masonry anchors (ties), apply PERM-A-BARRIER®VPS membrane horizontally to primed wall, beginning at the base. Each length of the membrane must be installed so that the upper edge runs continuously along the underside of the line of masonry anchors (ties). Subsequent membrane applied above must overlap the sheet below by 2 in. (51 mm) immediately below the line of anchors (ties). The membrane may be cut to an appropriate width such that it fits between the rows of anchors and allows for a min. 2 in. overlap onto the membrane below. It will be necessary to cut the membrane at the location of the anchors projecting from the wall to enable the sheet to be laid in place. End laps that occur in subsequent lengths that follow should maintain a minimum overlap of 2 in. (51 mm).

To prevent water from migrating under the membrane, all membrane must be pressed firmly into place with a hand roller or the back of a utility knife as soon as possible, ensuring continuous and intimate contact with the substrate.

In certain applications such as on soffits or ceilings, back-nail the membrane along the side lap prior to installing/overlapping the next sheet of membrane. Alternately install a termination bar that spans the soffit to ensure positive contact to the substrate.

Important: BITUTHENE® Liquid Membrane, BITUTHENE® Mastic or compatible sealant to seal around anchors. Fit the PERM-A-BARRIER®VPS product tightly around all penetrations through the membrane and seal using compatible sealant.

Continue the membrane into all openings in the wall area, such as windows, doors, etc., and terminate at points that will prevent interior visibility. The installation must be made continuous at all framed openings, such as windows, doors, etc. Flash framed openings with PERM-A-BARRIER®Detail Membrane and overlap onto PERM-A-BARRIER®VPS product in a shingled water shedding manner. Coordinate installation of the PERM-A-BARRIER®VPS Membrane with the roofing trade to ensure continuity with the roofing system at this critical transition area.

At the end of each working day, if the wall has been only partially covered, apply a bead of BITUTHENE® Liquid Membrane, BITUTHENE®Mastic or compatible sealant along the top edge of the membrane at its termination to prevent vertical drainage of precipitation from penetrating the end and undermining membrane adhesion. Tool the compatible sealant to ensure it is worked into the surface.

Inspect the membrane before covering and repair any punctures, damaged areas or inadequately lapped seams.

Membrane Protection

PERM-A-BARRIER®VPS membrane must be protected from damage by other trades or construction materials. All damaged areas must be repaired.

Membrane Repairs

All punctures, rips, tears or other discontinuities in the membrane must be repaired. Repairs must be made using PERM-A-BARRIER®VPS product sized to extend 6 in. (150 mm) in all directions from the perimeter of the affected area. Prior to repair, any loose, unbounded or unsound membrane should be removed. Carefully cut out affected areas, re-prime the base substrate and replace in similar procedure as outlined in the text 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. Apply a bead of compatible sealant along the top edge of the repair piece.

Product	Unit of Sale	Approximate Coverage	Weight	Palletization
PERM-A-BARRIER® VPS	1 roll	38.4 in x 141 ft (1.0 m x 43 m)	28.7 lbs/roll	25 rolls / pallet

Note: Units of sale for Ancillary products can be found on individual product webpages at gcpat.com

Typical Performance Properties

Test	Typical Value	Method
Color	White	
Air permeance at test pressure of 1.57 psf (75 Pa)	< 0.02 L/s/m ² (0.004cfm/ft ²)	ASTM E2178
Assembly air permeance at test pressure of 1.57 psf (75 Pa)	< 0.2 L/s/m ² (0.04cfm/ft ²)	ASTM E2357
Water vapor permeance	Minimum 10 perms, Method A, Dry Cup Minimum 10 perms, Method B, Wet Cup	ASTM E96
Water resistance	Pass	ICC - AC38
Peel strength @ minimum temperature (40°F)	> 5 pli to primed exterior gypsum board > 4 pli to PERM-A-BARRIER® VPS > 2.5 pli to primed CMU	ASTM D903

Pull adhesion	> 15 psi to primed exterior gypsum board > 12 psi to primed CMU	ASTM D4541
Breaking force	> 40 lbs, Machine Direction > 35 lbs, Cross Direction	ASTM D5034
Low temperature flexibility	Pass	ASTM D1970
Water penetration resistance around nails	Pass	ASTM D1970
Surface Burning Characteristics	Flame Spread Index, Class A Smoke Developed Index, Class A	ASTM E84
Wall assembly fire test	Pass as part of various wall assemblies with foam plastic insulation	NFPA 285

North America customer service: 1-866-333-3SBM (3726).

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

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GCP Applied Technologies Inc., 62 Whittemore Avenue, Cambridge, MA 02140 USA.

In Canada, GCP Canada Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.

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