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PERM-A-BARRIER® VPL 50RS UV STABLE Membrane Data Sheet

UV stable, Spray-friendly, Early wash-off resistance, vapor permeable

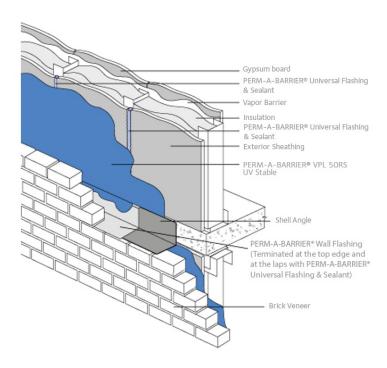


Product Description

GCP (GCP) PERM-A-BARRIER® VPL 50RS UV STABLE Membrane is a fluid applied, one component, STPE (Silyl Terminated Polyether) vapor permeable air and water barrier. When applied to approved construction surfaces, PERM-A-BARRIER® VPL 50RS UV STABLE is designed to cure and form a resilient, monolithic, fully bonded elastomeric membrane, and to create a continuous barrier against air infiltration and exfiltration, reducing associated energy loss and condensation problems.

PERM-A-BARRIER® VPL 50RS UV STABLE Membrane is specifically designed to provide superior protection against the damaging effects of air and liquid water ingress on the building envelope. Vapor permeability allows the wall to breathe and dry, minimizing the risk of water vapor from being trapped and condensing within the wall. While PERM-A-BARRIER® VPL 50RS UV STABLE Membrane is vapor permeable, it is impermeable to liquid water, allowing the material to act as a water drainage plane within the wall.

Typical Vapor Permeable Air Barrier Membrane Application. Drawings are for illustration purposes only. Refer to gcpat.com for specific application details.





Product Advantages

- Permanently UV stable behind maximum 1 in.(25 mm) wide open joint rainscreen system; provides design flexibility
- Can be exposed for up to 12 months during construction
- Early wash-off resistance
- Can be applied to damp-to-touch surfaces that are free of liquid water
- Sprayer friendly formula requiring light spray equipment
- Can be spray-, roller- or brush-applied
- Fire resistant meets NFPA 285 as part of various wall assemblies with and without foam plastic insulation
- VOC Content, 32 q/L (calculated)
- Formulated without phthalates and halogens
- Designed to protect against air passage and associated energy losses meets ASTM E2357 standard
- Vapor permeable. Minimizes moisture from being permanently trapped in the wall cavity by allowing the wall's ability to "breathe" and dry
- Single component. Fast and easy application with simple roller or spray equipment
- Fully bonded transmits wind loads directly to the substrate, and prevents water migration between the barrier and substrate
- Seamless continuous membrane integrity with no laps
- Adheres to properly prepared clean common construction substrates such as wood, block, concrete, OSB, and gypsum sheathing
- Can be used to treat sheathing joint less than 1/8 in.

System Components

MEMBRANE

PERM-A-BARRIER® VPL 50RS UV STABLE Membrane

Ancillary Products

- PERM-A-BARRIER® Universal Flashing & Sealant. one part moisture curing, sealant for detailing and joint treatments
- PERM-A-BARRIER® Wall Flashing heavy-duty fully adhered membrane for through-wall flashing detailing. All Wall Flashing must be applied prior to the application of PERM-A-BARRIER® VPL 50RS UV STABLE. The top and side edges of all laps, seams, repairs, as well as cuts, punctures, and other damage must be sealed with a PERM-A-BARRIER® Universal Flashing & Sealant. See PERM-A-BARRIER® Wall Flashing Product Data Sheet at gcpat.com for details
- PERM-A-BARRIER® NPS Detail Membrane primer-less flexible membrane for detail flashing areas. Must be applied prior to PERM-A-BARRIER® VPL 50RS UV STABLE membrane and terminated on the edges with a bead of PERM-A-BARRIER®
- PERM-A-BARRIER® Detail Membrane flexible, fully adhered membrane for detail flashing areas. Must be applied prior to PERM-A-BARRIER® VPL 50RS UV STABLE Membrane and terminated on the edges with a bead of PERM-A-BARRIER®Universal Flashing & Sealant



• PERM-A-BARRIER® Aluminum Flashing – flexible, aluminum faced, fully adhered membrane for detail flashing areas must be applied prior to PERM-A-BARRIER® VPL 50RS UV STABLE membrane and terminated on the edges with a bead of PERM-A-BARRIER®

Limitations of use

- Approved uses only include those specifically detailed in this Product Data Sheet and other current Product Data Sheets that can be found at gcpat.com. For any other anticipated use contact GCP Technical Services.
- Do not install during precipitation (rain, snow, sleet, etc.) events.
- PERM-A-BARRIER® VPL 50RS UV STABLE Membrane has a maximum in-service temperature of 300° F (148°C).
- PERM-A-BARRIER® VPL 50RS UV STABLE Membrane should not be used in waterproofing applications in hydrostatic conditions.
- If, or when, transitioning PERM-A-BARRIER® VPL 50RS UV STABLE Membrane to PERM-A-BARRIER® VPS 30 Membranes, please consult GCP Technical Service on proper transition.
- PERM-A-BARRIER® VPL 50RS UV STABLE Membrane is not compatible with petroleum solvents, fuels and oils, materials containing creosote, pentachlorophenol, or linseed oil.

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 website at gcpat.com.

Storage

PERM-A-BARRIER® VPL 50RS UV STABLE Membrane should be stored under cover in original sealed containers above 50°F (10°C) and below 90°F (32°C). The shelf life is twelve (12) months in unopened containers. For temporary storage, store opened containers with plastic protective liner covering the material and lid tightly closed to prevent moisture exposure. PERM-A-BARRIER® VPL 50RS UV STABLE Membrane is moisture-curing and should not be mixed with water during application.



Installation

Technical Support, Details, and Technical Letters

The most up to date detail drawings and technical letters are available at gcpat.com. Documents in hardcopy as well as information found on websites other than, gcpat.com, may be out of date or in error. Before using this product it is important that information be confirmed by accessing gcpat.com and reviewing the most recent product information, including without limitation Product Data Sheets, Contractor Manuals, Technical Bulletins, Detail Drawings, and detailing recommendations. For technical assistance with detailing and problem solving, please contact your local GCP Representative or call toll-free at (866) 333–3SBM (3726) to get contact information for your local GCP Representative.

Surface Preparation

All surfaces must be sound and free from spalled areas, loose aggregate, loose nails or screws, sharp protrusions, or other matter that will hinder the adhesion or regularity of the membrane installation. The surface must also be free from frost, dirt, grease, oil, or other contaminants. Clean loose dust and dirt from the surface by brushing or wiping with a clean, dry cloth.

Application

Membrane Application

PERM-A-BARRIER[®] VPL 50RS UV STABLE membrane can be installed by spray application as a single continuous, monolithic coat. Prevent from sags, run, or voids by regularly checking wet mil thickness throughout application to assure adequate coverage. The product may also be applied by roller or brush. If applying the membrane by roller or brush, multiple material passes may be necessary to ensure that the required wet thickness is achieved. Contact GCP for further details of local applicators, application techniques and spray equipment.

Application Temperature

PERM-A-BARRIER® VPL 50RS UV STABLE Membrane may be applied at temperatures as low as 10°F (-12°C). During cold weather installation less than 32°F (0°C), product must be stored above 50°F (10°C) for a minimum of 24 hours prior to application to improve spraying and overall product installation.

Thickness Control

Thickness can be controlled by marking the area and spot-checking the thickness with a wet film thickness gauge. Swipe marks on the surface of the PERM-A-BARRIER® VPL 50RS UV STABLE Membrane are acceptable provided the minimum thickness of 20-mils is maintained.

Coverage Rates

PERM-A-BARRIER[®] VPL 50RS UV STABLE Membrane is typically applied at a minimum thickness of 20 mils wet and dry. The theoretical coverage rate (not including waste) at a thickness of 20 mils is approximately 80 ft.²/gal.



Coverage may vary depending on application technique and may be reduced over rough and uneven substrates. The applicator goal should be a continuous membrane at a thickness of 20 mils. Adjust coverage rate accordingly.

Drying

PERM-A-BARRIER® VPL 50RS UV STABLE Membrane is dry to touch and can be over coated within 4-hours at 50% R.H, 68°F. The product fully cures in 24-hours. Drying and skinning times may vary depending on temperature, humidity, and surface conditions.

Concrete and Other Monolithic Cementitious Surfaces

Surface irregularities greater than 1/4 in. (6 mm) across and/or 1/8 in. (3 mm) in depth should be filled with a lean mortar mix or non-shrinking grout. Remove concrete form lines and any high spots greater than 1/8 in. (3 mm) in height to ensure uniform surface. On highly dusty or porous substrates it may be necessary to apply a scratch coat of PERM-A-BARRIER® VPL 50RS UV STABLE Membrane prior to rolling or spraying to full thickness. Remove any visible water prior to application.

Concrete Masonry Units (CMU)

The CMU surface should be smooth and free from projections. Strike all mortar joints full and flush to the face of the concrete block. Fill all voids and holes, particularly at the mortar joints, with a lean mortar mix or no shrinking grout. Alternatively, a parge coat (typically one part cement to three parts sand) may be used over the entire surface.

Exterior Sheathing Panels

PERM-A-BARRIER® VPL 50RS UV STABLE Membrane may be applied directly to exterior sheathing panels such as exterior drywall, plywood, oriented strand board (OSB), and glass faced wallboards. To avoid deflection at the panel joints, fasten corners and edges with appropriate screws. Fasteners should be driven flush with the panel surface (not counter sunk) and into the framing system in accordance with the manufacturer's recommendations. Completely fill the sheathing joint with PERM-A-BARRIER® VPL 50RS UV STABLE or PERM-A-BARRIER®Universal Flashing & Sealant and then install a scratch coat (approx. 15-30 mils) of PERM-A-BARRIER® VPL 50RS UV STABLE or PERM-A-BARRIER® Universal Flashing & Sealant with a margin trowel or similar onto the face of the sheathing approximately 1 in. (25 mm) on each side of the sheathing joint, ensuring the edges are tapered to prevent shadowing of the spray application. When using PERM-A-BARRIER®Universal Flashing & Sealant, once the Sealant is tack free, the PERM-A-BARRIER® VPL 50RS UV STABLE Liquid Membrane can be used to treat sheathing joint less than 1/8 in.

Detailing

Detailing should be completed prior to applying PERM-A-BARRIER® VPL 50RS UV STABLE Membrane. The field application should completely cover the detail areas to provide a continuous membrane. For a complete description and instructions on individual details, see detail drawings at gcpat.com.



Transitions to beams, columns, windows, and doorframes, etc., can be made with a strip of PERM-A- BARRIER® NPS, PERM-A-BARRIER® Detail Membrane, PERM-A-BARRIER® Aluminum Flashing, or PERM-A- BARRIER® Wall Flashing prior to installing PERM-A-BARRIER® VPL 50RS UV STABLE Membrane. The top edges of all detail Membranes and flashings must be terminated with PERM-A-BARRIER®Universal Flashing & Sealant. All self-adhered membranes, including tapes, must be applied prior to the application PERM-A-BARRIER® VPL 50RS UV STABLE Membrane. Only PERM-A-BARRIER® Wall Flashing membrane can be used for through wall flashing applications or under masonry units.

A minimum 6 in. (150 mm) wide strip of PERM-A-BARRIER® NPS Detail Membrane, PERM-A-BARRIER® Aluminum Flashing, or PERM-A-BARRIER® Wall Flashing should be installed and centered over all outside corners ensuring that all horizontal laps shed water and terminated on the edges with a bead of PERM-A-BARRIER®Universal Flashing & Sealant. Installation of the self-adhered flashing at corners should be installed prior to the PERM-A-BARRIER® VPL 50RS UV STABLE application in accordance with the applicable data sheet and installation instructions. Avoid installing PERM-A-BARRIER® VPL 50RS UV STABLE and PERM-A-BARRIER®Universal Flashing & Sealant under self-adhered flashing. Best practice would be to install corner flashing prior to detailing exterior sheathing joints with PERM-A-BARRIER® VPL 50RS UV STABLE or PERM-A-BARRIER® Universal Flashing & Sealant. Any gaps around penetrations should be grouted solid or filled with a PERM-A-BARRIER® VPL 50RS UV STABLE or PERM-A-BARRIER®Universal Flashing & Sealant prior to the PERM-A-BARRIER® VPL 50RS UV STABLE Membrane application. Refer to standard penetration details.

Application of Insulation and Finishes

PERM-A-BARRIER® VPL 50RS UV STABLE Membrane is not suitable for permanent exposure, except behind open joint rain screen systems with maximum 1 in. (25 mm) joints.. Insulation boards may be installed after the product has fully cured. If the insulation or exterior finish cannot be applied within 12 months of the product application, some form of temporary protection (such as tarpaulins) must be used to protect the product from the effects of sunlight. Installation of insulation boards can be accomplished by using compatible mechanical fasteners.

Cleaning

Tools and equipment are most effectively cleaned using mineral spirits and removing material as soon as possible to prevent moisture curing on tools and equipment. The product should not be left in spray guns, hoses, or pumps for a prolonged period of time unless equipment allows for moisture lock hoses or fittings. For long-term storage, thoroughly flush the entire system with mineral spirits. Do not flush pump with water, and do not cross contaminate with water based materials. Good preventative maintenance will lengthen the life of the pumps.

Supply

UNIT OF SALE	APPROXIMATE COVERAGE WEIGHT	PALLETIZATION
PERM-A-BARRIER® VPL 5ORS UV STABLE 1 pail	80 SF / gallon (400 SF per pail - 5 gallon pail)	32 pails per pallet
PERM-A-BARRIER® VPL 5ORS UV STABLE 1 drum	80 SF / gallon (4,000 SF per drum - 50 gallon drum)	4 drums per pallet



Ancillary Products

Supply information for ancillary products can be found at gcpat.com

Physical Properties

	TYPICAL VALUE	TEST METHOD
Color	Black	
Solids content by volume	98.2%	
Maximum In-Service Temperature	300° F (148°C)	
Maximum UV Exposure	UV stable behind open-joint rainscreen system; can be exposed up to 12 months during construction	
The Volatile Organic Compound	32 g/L	Calculated
Drying time @ 50% R.H., 68°F ¹	Complete cure in 24 hours, Skin over in 2 hours	
Water resistance of in-place membrane	Pass at >15 psf	ASTM E331
Air permeance	<0.02 L/s·m² @ 75 Pa (<0.004 cfm/ft² @ 1.57 psf)	ASTM E2178
Air permeance	<0.02 L/s·m² @ 75 Pa (<0.004 cfm/ft² @ 1.57 psf)	ASTM E2357
Water vapor transmission	13 perms @ 20 mils	ASTM E96 - Method B
Pull adhesion to glass-mat faced gypsum sheathing ²	>30 psi, facer failure	ASTM D4541
Pull adhesion to CMU	>50 psi	ASTM D4541
Elongation	>250%	ASTM D412—Die C
Nail sealability	Pass	ASTM D1970
Low temperature flexibility	Pass at -40 °F	ASTM D1970
Wall assembly fire test	Pass as part of various wall assemblies with foam plastic insulation	NFPA 285
Crack Bridging	Pass	ASTM C1305 for 1/8 inch crack at -20°F (-28.9°C)
Mold, Mildew and Fungal growth	Pass	ASTM D 5590-17

Footnote

- 1. Drying and skinning times may vary depending on temperature, humidity and surface conditions
- $2. \quad \text{Failure occurs when glass facing pulls away from gypsum core} \\$



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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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Last Updated: 2023-07-10



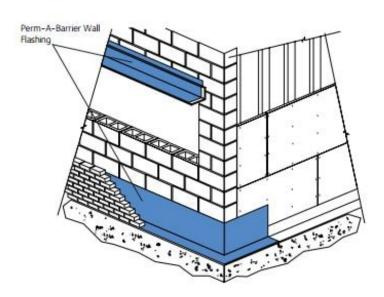
PERM-A-BARRIER® Wall Flashing Data Sheet

Self-adhesive, rubberized asphalt/polyethylene through-wall flashing for cavity wall applications

Product Description

PERM-A-BARRIER[®] wall membranes are ideal for protecting the building superstructure from the damaging effects of the elements. By minimizing air and water vapor flow through the building exterior, PERM-A-BARRIER[®] wall membranes:

- Prevent premature deterioration of the building envelope
- Enhance thermal performance of the structure and save energy costs
- Improve comfort for the building occupant



Product Advantages

- Fully bonded—continuous adhesion to the substrate resists wind loads and prevents water tracking behind the tape
- Waterproof and impermeable to moisture— impermeable to the passage of liquid water and water vapor
- 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—creates 100% watertight laps and allows self-sealing around mechanical fasteners



- Unique green color and logo—highly differentiated on the job site from other flashing types and enables easy identification of damage
- RIPCORD® Split Release on Demand—faster application in the straight-aways, ease of membrane positioning in detailed areas
- Foldless release paper—fewer edge catches, 180° pull-back, ease of membrane cutting (single cuts) and membrane positioning, quicker one-man installs

System Components

- PERM-A-BARRIER® Wall Flashing— 40 mil (1 mm) total thickness self-adhesive, cold applied tape consisting of 32 mils (0.8 mm) of rubberized asphalt integrally bonded to a 8 mil (0.2 mm) high density, cross laminated polyethylene film. The rolls are interwound with disposable silicone-coated release sheet
- PERM-A-BARRIER® Primer Plus— water-based vapor permeable primer used to facilitate tenacious adhesion of PERM-A-BARRIER® self-adhered membranes to the substrate
- PERM-A-BARRIER® WB Primer— high tack, water-based primer for use with PERM-A-BARRIER® Wall Flashing on cementitious and exterior gypsum wallboards
- BITUTHENE® Primer B2 LVC— low VOC solvent-based primer for green concrete or damp surfaces
- PERM-A-BARRIER® Universal Flashing & Sealant one part moisture curing, STPE sealant for sealing penetrations, terminations, brick ties, final terminations & flashing application.
- 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 SDS (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 SDS before use. SDS can be obtained from our web site at gcpat.com or by contacting us toll free at 866-333-3SBM (3726).

Preparatory Work

Apply PERM-A-BARRIER® Wall Flashing and accessories only in fair weather when air and surface temperatures are above 25 °F (-4 °C).

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



Conditioning and Priming

Apply PERM-A-BARRIER® Primer Plus by air spray, brush or roller or apply PERM-A-BARRIER® WB Primer by brush or roller. Allow the primer to dry completely before application of the flashing. Drying times may vary depending upon temperature and humidity conditions. Refer to PERM-A-BARRIER® Primer Plus and PERM-A-BARRIER® WB Primer product data sheet for installation recommendations and Technical Letter 2, Substrate Preparation for Application of PERM-A-BARRIER® Products to Glass-Mat Faced Gypsum Sheathing for priming requirements on specific glass-mat faced sheathing products.

Flashing Application

Pre-cut PERM-A-BARRIER® Wall Flashing to easily handled lengths. Peel release paper from roll to expose rubberized asphalt and carefully position flashing against substrate. RIPCORD®, a Split Release on Demand feature embedded in the membrane, also makes PERM-A-BARRIER® Wall Flashing easy to position in detailed areas. Press firmly into place with a steel hand roller or the back of a utility knife as soon as possible, fully adhering the flashing to the substrate to prevent water from migrating under the PERM-A-BARRIER® Wall Flashing. Form end dams at horizontal flashing terminations to prevent water entry. Overlap adjacent pieces 2 in. (51 mm) and roll overlap with a steel hand roller. Apply a bead of Universal Flashing & Sealant along all laps, seams, top edges, cuts, penetrations and trowel into place.

When applying PERM-A-BARRIER® Wall Flashing to PERM-A-BARRIER® Liquid, VP, VP LT or VPO, apply a bead of Universal Flashing & Sealant or BITUTHENE® Liquid Membrane along all laps, seams, top edges, cuts, penetrations and as shown in GCP detail drawings, and trowel into place. If PERM-A-BARRIER® Liquid is more than 7 days old, priming may be necessary. Refer to Technical Letter 11 for more information. Lay or trim edges of PERM-A-BARRIER® Wall Flashing 1/2 in. (13 mm) back from the face of the masonry. No reglet is necessary when installing PERM-A-BARRIER® Wall Flashing 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.

All non water shedding edges must be sealed with Universal Flashing & Sealant, BITUTHENE® Liquid Membrane or BITUTHENE® Mastic.

Protection—PERM-A-BARRIER[®] Wall Flashing must be protected from damage from other trades or construction materials.

Storage and Handling Information

All materials must be protected from rain and physical damage. Pallets of PERM-A-BARRIER® Aluminum Flashing 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.



Supply

	UNIT OF SALE	APPROXIMATE COVERAGE	WEIGHT	PALLETIZATION
PERM-A-BARRIER® Wall				
Flashing				
12 in. (305 mm)	3 rolls	75 linear ft per roll	22.5 lbs/roll	25 cartons (75 rolls) per pallet
18 in. (457 mm)	2 rolls	75 linear ft per roll	33.7 lbs/roll	25 cartons (50 rolls) per pallet
24 in. (610 mm)	1 roll	75 linear ft per roll	49.7 lbs/roll	35 cartons (35 rolls) per pallet
36 in. (914 mm)	1 roll	75 linear ft per roll	67.7 lbs/roll	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	12 tubes	approx. 30 linear ft x 1/4 in.	32 lbs/carton	72 cartons (864 tubes) per
tube		bead		pallet
PERM-A-BARRIER® Universal	1 cartridge	approx. 30 linear ft x 1/4 in.	29 oz. cartridge	10 cartridges/ carton
Flashing & Sealant Sealant—29		bead		42 cartons/ pallet
oz. Cartridge				
BITUTHENE® Liquid Membrane	1 pail	approx. 200 Linear ft/gal @ 1"	16 lbs/pail	100 pails per pallet
—1.5 gal pail		wide x 90 mils.		
BITUTHENE® Liquid Membrane	1 pail	approx. 200 Linear ft/gal @ 1"	44 lbs/pai	24 pails per pallet
—4 gal pail		wide x 90 mils.		
PERM-A-BARRIER® Primer Plus	1 pail	450-500 ft²/gal (11-12	43 lbs/pail	36 pails per pallet
—5 gal pail		m^2/L)		
PERM-A-BARRIER® WB Primer	1 pail	250-350 ft²/gal (6-8 m²/L)	45 lbs/pail	32 pails per pallet
—5 gal pail				

Physical Properties

	TYPICAL VALUE	TEST METHOD
Color	Green with repeated logo imprint	
Thickness	40 mil (1 mm)	ASTM D3767, method A
Low temperature flexibility	Unaffected at -45 °F (-43 °C)	ASTM D1970
Tensile strength, membrane	1200 psi (8300 kPa) minimum)	ASTM D412, Die C modified
Elongation, ultimate failure of rubberized asphalt	200% minimum	ASTM D412
Lap adhesion at minimum application temperature	60 lbs/ft (875 N/m) width	ASTM D1876 modified
Adhesion to concrete at minimum application	60 lbs/ft (875 N/m) width	ASTM D903
temperature		
Puncture resistance, membrane	40 lbs (178 N) minimum MD	ASTM D781
	80 lbs (356 N) minimum MD	ASTM E154



Tear resistance, initiation	13 lbs (58 N) minimum MD	ASTM D1004
Tear resistance, propagation	9 lbs (40 N) minimum MD	ASTM D1938
Permeance	0.05 perms (2.9 ng/m²sPa) maximum	ASTM E96, method B
Water absorption	0.1% maximum	ASTM D570

Limitations

PERM-A-BARRIER[®] Wall Flashing must not be applied in areas where it will be exposed to sunlight permanently and must be covered within a reasonable amount of time, not to exceed 60 days. Refer to Technical Letter 19, *Exposure Guidelines for PERM-A-BARRIER*[®] *Self-Adhered Membranes*.

PERM-A-BARRIER® Wall Flashing and all other PERM-A-BARRIER® self-adhered membranes should not be applied over Universal Flashing & Sealant.

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 GCP field sales representatives and technical service personnel, backed by a central research and development technical services staff.

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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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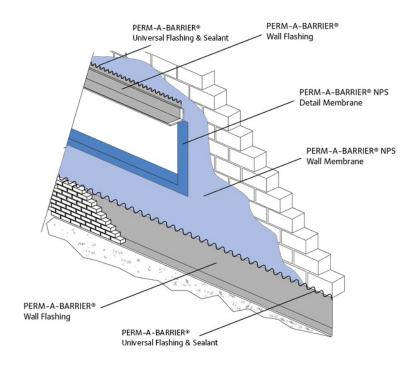


PERM-A-BARRIER® NPS Detail Membrane Data Sheet

Primerless self-adhered detail membrane for air and vapor barrier applications

Product Description

GCP Applied Technologies ("GCP") PERM-A-BARRIER® NPS Detail Membrane is specifically designed for protecting and sealing critical areas of the building superstructure from the damaging effects of the elements by minimizing air, water and water vapor flow through the building exterior at transition areas.



Typical Air and Vapor Barrier Application

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

Advantages

- Primerless self-adhered membrane—allows for reduction of installation time by up to 40%
- Fully bonded—helps transmit wind loads directly to the substrate
- Waterproof and impermeable to moisture—impermeable to the passage of liquid water and water vapor
- Air tight—specifically designed to protect against air passage and associated energy losses.
- Cross laminated film provides dimensional stability, high tear strength, puncture and impact resistance
- Flexible—elongation test value of 200% accommodates minor settlement and shrinkage movement
- Controlled thickness—factory made sheet allows for consistent, non-variable site application
- Aggressive, conformable adhesive—can be used to help seal around mechanical fasteners
- Wide application window— primerless application at surface and ambient temperatures of 25°F (-4°C) and above.



System Components

PERM-A-BARRIER® NPS Detail Membrane is fully adhered and is designed for use with other GCP sheet and fluid applied membranes. For specific product use with other GCP membranes and fluids please refer to the individual Sheet and Fluid Applied Membrane product data sheet instructions found at "gcpat.com"

Other Ancillary Products Specific product information and product packaging details for all GCP products (including ancillary products) can be found at gcpat.com

- PERM-A-BARRIER® Adhesive Adhesive for difficult to bond areas
- PERM-A-BARRIER® Primer Plus- water-based vapor permeable primer which imparts an aggressive, high tack finish on the treated substrate.
- PERM-A-BARRIER® Universal Flashing & Sealant one part moisture curing, STPE sealant for sealing penetrations, terminations, brick ties, final terminations & flashing application.
- BITUTHENE® Mastic—rubberized asphalt mastic for sealing penetrations, terminations, brick ties, etc. as detailed in GCP Product Data Sheets
- BITUTHENE® Liquid Membrane—two component, trowel grade, asphalt modified urethane for sealing patches, terminations, brick ties, etc.

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® NPS Detail Membrane is not intended for any other use. Contact GCP Technical Services where any other use is anticipated or intended.
- Perm-A-Barrier NPS Detail Membrane must not be applied in areas where it will be exposed to direct sunlight
 permanently, and must be covered within 1 year of installation. Refer to Technical Letter 19, Exposure Guidelines for
 Perm-A-Barrier Self-Adhered Membranes.
- Maximum In Service Temperature (as installed) is 160°F (71°C)

Safety and Handling

- The most current Safety Data Sheet (SDS) can be obtained from our web site at gcpat.com or by contacting us toll free at 866-333-3SBM (3726).
- PERM-A-BARRIER® NPS Detail membrane must be handled properly. The best available information on safe
 handling, storage, personal protection, health and environmental considerations has been gathered. Refer to product
 label and 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 SDS before use.

Storage Information

- Pallets of PERM-A-BARRIER® NPS Detail Membrane must not be double stacked on the job site.
- All materials must be protected from rain and physical damage.
- Store off ground under tarps with adequate ventilation or otherwise protected from rain and ground moisture
- Store membrane where temperatures will not exceed 90 °F (32 °C) for extended periods.
- Store in dry conditions at 40°F (4.5°C)-90°F(32°C)



- Observe 1 year shelf life and use on a first in- first out basis
- Review technical letter #30 Shelf Life/Storage and Handling of GCP Waterproofing and Air Barrier Products
- Store only as much material at point of use as is required for each day's work.

Installation

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® NPS Detail Membrane. For technical assistance with detailing and problem solving please call toll-free at (866) 333–3SBM (3726)

Temperature

- PERM-A-BARRIER® NPS Detail Membrane may be applied to most surfaces without primer only in dry weather and when air and surface temperatures are above 25°F (-4°C).
- Maximum in service temperature is 160°F (71°C)

Substrate 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 membrane installation. Clean loose dust or dirt from the surface to which the membrane is to be applied by wiping with a clean, dry cloth or brush. It is best practice to first apply primer onto any gypsum sheathing cut edges that will receive PERM-A-BARRIER® NPS Detail Membrane to help reduce dust that may impact adhesion. In cold temperature installations do not apply over ice or frost.

Application



- Pre-cut PERM-A-BARRIER® NPS Detail Membrane to easily handled lengths. Peel release paper from roll to expose adhesive and carefully position the membrane against substrate. The entirety of the membrane must be pressed firmly into place with sufficient pressure using a rubber or vinyl hand roller during application to ensure continuous and intimate contact with the substrate and to prevent water from migrating under the membrane. Overlap adjacent pieces 2 in. (51 mm) and roll overlap with a steel hand roller.
- When applying PERM-A-BARRIER® NPS Detail Membrane to PERM-A-BARRIER® Wall Membranes and PERM-A-BARRIER® Wall Flashing Apply a bead of Universal Flashing & Sealant, BITUTHENE® Mastic or BITUTHENE® Liquid Membrane along top edges of cuts, penetrations, all laps and seams on horizontal surfaces (e.g. sill plates), critical areas and as shown in GCP detail drawings, and tool into place.
- When applying PERM-A-BARRIER® NPS Detail Membrane to PERM-A-BARRIER® Liquid, PERM-A-BARRIER® NPL 10/NPL 10 LT, PERM-A-BARRIER® VPL, PERM-A-BARRIER® VPL Low Temp or PERM-A-BARRIER® VPO Apply a bead of Universal Flashing & Sealant or BITUTHENE® Liquid Membrane along top edges, cuts, penetrations, all laps and seams on horizontal surfaces (e.g. sill plates), critical areas and as shown in GCP detail drawings, and trowel into place.
- If PERM-A-BARRIER® fluid applied membranes are more than 7 days old, contact GCP technical service for guidance. Refer to Technical Letter #11 for more information specific to PERM-A-BARRIER® Liquid.
- No reglet is necessary when installing PERM-A-BARRIER® NPS Detail Membrane to vertical surfaces
- All non-water shedding edges must be sealed with Universal Flashing & Sealant, Bituthene Liquid Membrane or Bituthene Mastic.

Membrane Repairs

- Repairs must be made using PERM-A-BARRIER® NPS Detail Membrane sized to extend 6 in. (150 mm) in all directions from the perimeter of the affected area.
- If wrinkles develop, carefully cut out affected area and replace
- The entirety of the membrane patch must be pressed firmly into place with sufficient pressure using a rubber or vinyl hand roller during application to ensure continuous and intimate contact with the substrate and to prevent water from migrating under the membrane.

Membrane Protection

 PERM-A-BARRIER[®] NPS Detail Membrane must be protected from damage by other trades or construction materials.

Supply

PRODUCT	UNIT OF SALE	APPROXIMATE COVERAGE	WEIGHT	PALLETIZATION
PERM-A-BARRIER® NPS Detail Membrane				
- 6 in. (152 mm)	12 rolls	109 linear ft per roll	7 lbs/roll	30 cartons (360 rolls) per
- 9 in. (225 mm)	6 rolls	109 linear ft per roll	10 lbs/roll	30 cartons (180 rolls) per pallet



- 12 in. (305 mm)	6 rolls	109 linear ft per roll	13 lbs/roll	30 cartons (180 rolls) per
				pallet
- 18 in. (455 mm)	2 rolls	109 linear ft per roll	21 lbs/roll	25 carton (50 rolls) per pallet

The most current supply information for ancillary products can be found at gcpat.com

Physical Properties

PROPERTY	PERM-A-BARRIER NPS DETAIL MEMBRANE	TEST METHOD
Thickness includes HDPE Film	0.018 in. (0.46 mm)	ASTM D3767 method A
Minimum tensile strength, membrane	400 psi (2.8 MPa)	ASTM D412
Minimum tensile strength, film	5000PSI (34.5 MPa)	ASTM D412
Minimum elongation, to failure	200%	ASTM D412
Pliability, at 180° bend over 1 in. (25 mm) mandrel	Pass at -20°F (-29°C)	ASTM D1970
Crack cycling, 1/8 in. (3.2 mm) at -25°F (-32°C)	Pass	ASTM C1305
Nail Sealability	Pass	ASTM D1970
Minimum puncture resistance, membrane	40 lbs. (178 N)	ASTM E154
Lap peel adhesion at minimum application	3.5 lbs./in.	ASTM D1876
temperature		
Maximum permeance to water vapor transmission	<0.01 perms / 0.02 perms	ASTM E96 Method A/ Method B
Water absorption (weight gain at 48 hours)	0.1%	ASTM D570
Peel Adhesion to Gypsum board	>5 pli.	ASTM D903
Peel adhesion: to concrete	>5 pli	ASTM D903
Maximum In Service Temperature	160°F(71°C)	NA

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PERM-A-BARRIER® Adhesive Primer Data Sheet

Contact an Air Barrier Specialist today

Product Description

PERM-A-BARRIER[®] Adhesive Primer imparts an aggressive, high tack finish on the treated substrate. It is specifically designed to facilitate tenacious adhesion of PERM-A-BARRIER[®] self-adhered membranes to various substrates including plywood, oriented strand board (OSB), concrete masonry units (CMU) and glass faced wall boards.

Product Advantages

- Excellent adhesion—bonds to substrate and remains permanently pressure sensitive
- Aggressive tack—provides a tenacious bond to substrates such as plywood, OSB, CMU and glass faced wall boards
- Fast drying—increased flexibility for application schedule
- Fast and easy application—by brush or roller
- Low temperature—can be applied at 20°F (-6°C)
- VOC compliant—meets SCAQMD regulations

Use

PERM-A-BARRIER® Adhesive Primer can be used at 20°F (-6°C) or above.

Availability

PERM-A-BARRIER® Adhesive Primer is available in 5 gallon pails.

Installation

Safety, Storage and Handling Information

PERM-A-BARRIER® Adhesive Primer is flammable in the wet state. Material Safety Data Sheets (MSDS) are available and users should acquaint themselves with this information. Carefully read detailed precaution statements on product labels and the MSDS before use.

- The VOC (Volatile Organic Compound) content is 135 q/L EPA method 24.
- Best storage temperature is 40-80 °F (4-27 °C). Lower temperatures can cause increased viscosity of a temporary nature. Rotate stock on a "first in, first out" basis.
- When stored at recommended temperature in the original, unopened container, this product has a shelf life of 12 months from date of shipment.
- Do not apply on EPS/XPS insulation board.
- Use solvent resistant brushes and rollers.



- Keep work area well ventilated.
- Low flash point product. To minimize risk of fire, implement best practices to use only one open container per area.
- Keep away from open flame, sparks, and ignition sources.

Surface Preparation

All surfaces must be free from frost, dirt, grease, oil or other contaminants. Failure to remove excessive dust may result in compromised adhesion of the membrane to the building envelope.

Application

Apply PERM-A-BARRIER[®] Adhesive Primer in dry weather with ambient and substrate temperatures above 20°F (-6°C). Surface must be dry and clean. PERM-A-BARRIER[®] Adhesive Primer can be applied by brush or roller. Typical brushes and rollers designed for use with latex paints may be used. Only prime areas in which the membrane can be applied the same day.

Coverage

Approximately $250-300 \, \mathrm{ft^2/gal} \, (23-28 \, \mathrm{m^2/L})$ on glass-mat faced gypsum sheathing such as DensGlass[®]Gold. Coverage rates may vary depending on substrate type, brand and roughness. Lower coverage per gallon will result in lower permeability. Do not apply more than one coat. For technical assistance, please contact your local GCP Representative.

Drying

Allow PERM-A-BARRIER® Adhesive Primer to dry until surface becomes tacky. Drying times may vary depending on temperature and humidity conditions. The product is packaged "ready to use." Do not use any substance to thin this product. Apply membrane after primer is dried but surface is still tacky. Do not over prime or do not apply multiple coats.

Cleanup

Wet PERM-A-BARRIER[®] Adhesive Primer may be removed using mineral spirits. For dry adhesive, citrus based cleaners may be used.

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PERM-A-BARRIER® WB Primer Data Sheet

Water-based primer for use with Perm-A-Barrier Flashings, Detail Membrane and Wall Membrane

Product Description

PERM-A-BARRIER® WB Primer is a water-based primer which imparts an aggressive, high tack finish on the treated substrate. It is specifically designed to facilitate tenacious adhesion of PERM-A-BARRIER® Flashings, PERM-A-BARRIER® Detail Membrane and PERM-A-BARRIER® Wall Membrane to various substrate including glass-mat faced gypsum sheathing. Refer to Technical Letter 2, Substrate Preparation for Application of PERM-A-BARRIER® Products to Glass-Mat Faced Gypsum Sheathing for priming requirements on specific glass-mat faced sheathing products.

Product Advantages

- Excellent adhesion—bonds to substrate and binds dust
- Aggressive tack—provides a tenacious bond to difficult substrates such as DensGlass Gold and other glass faced wall boards
- Fast drying—increased flexibility for application schedule
- Fast and easy application—by brush or roller
- VOC compliant—water-based, contains no hazardous or flammable solvents
- Low odor—no noxious fumes

Use

PERM-A-BARRIER® WB Primer can be used at 25 °F (-4 °C) or above. It will freeze at 21 °F (-7 °C) and can no longer be used after it freezes.

Availability

PERM-A-BARRIER® WB Primer is available in 1 gallon jugs and 5 gallon plastic pails.

Installation

Safety, Storage and Handling Information

PERM-A-BARRIER® WB Primer is nonflammable. SDS (Safety Data Sheet) are available at gcpat.com and users should acquaint themselves with this information. Carefully read detailed precaution statements on product labels and the SDS before use

Store above freezing 32 °F (0 °C).

The VOC (Volatile Organic Compound) content is 10 g/L and it meets the U.S. EPA Volatile Organic Compound Emission Standard for Architectural Coatings.



Architectural and industrial maintenance regulations limit the VOC content in products classified as architectural coatings. Refer to Technical Letters at gcpat.com for the most current list of allowable limits.

Application

Apply primer in dry weather with ambient and substrate temperatures above 25 °F (-4 °C). Surface must be dry and clean.

Surface Preparation

All surfaces must be free from frost, dirt, grease, oil or other contaminants. Failure to remove excessive dust may result in compromised adhesion of the membrane.

In cooler or humid conditions, priming may be done in advance. If primed surface is exposed for more than 7 days, or if significant dust or dirt accumulates on the surface, re-prime with a thin coat of PERM-A-BARRIER[®] WB Primer.

Roller Technique

Synthetic, 1/2 in. (13 mm), nap rollers have been found to be very successful for the application of PERM-A-BARRIER® WB Primer. A moderately thick coating should be applied and rolled out evenly (see coverage below). A properly applied coating will have uniform coverage and leave a tacky finish to the surface when dry.

Coverage

 $250-350 \text{ ft}^2/\text{gal} (6.0-8.0 \text{ m}^2/\text{L})$

Drying Time

To be effective, the PERM-A-BARRIER® WB Primer needs to fully dry. Drying time of the material is dependent upon many factors including temperature, humidity, wind, sunlight and coverage rate. The drying time could vary from as little as 15 min. (warm and windy) to 3 hours (cold and no wind), depending upon the weather condition. The following are quidelines for dry time at various temperatures:

- 90 °F (32 °C) or greater: 45 min.-1 hr
- 50 °F (10 °C) to 90 °F (32 °C): 1–3 hrs
- Less than 50 °F (10 °C): 3 hrs +

The product is packaged "ready to use." Do not use any substance to thin this product.



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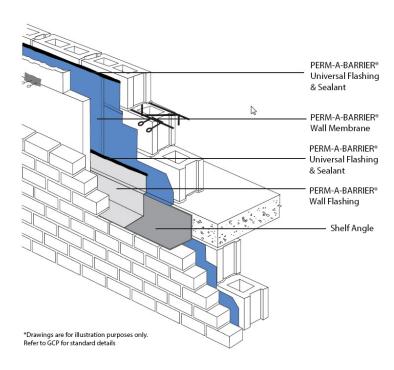
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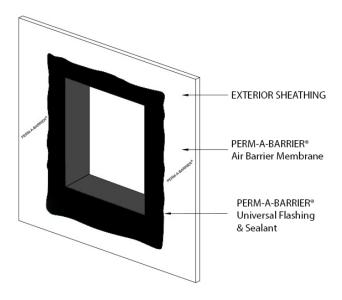
PERM-A-BARRIER® Universal Flashing & Sealant Data Sheet

PAB Universal Flashing & Sealant is designed for a variety of uses with GCP's air and weather barrier systems.

Product Description

PERM-A-BARRIER® Universal Flashing & Sealant is designed for a variety of uses with GCP's air and weather barrier systems.





*Drawings are for illustration purposes only. Refer to GCP for standard details

Uses

PERM-A-BARRIER® Universal Flashing & Sealant is ideally suited for the following uses:

- Sealing of finished terminations, edges of patches and overlaps in detail areas
- Sealing penetrations through GCP air and weather barrier systems, such as plumbing or ductwork
- As a sheathing joint treatment for GCP fluid-applied air and weather barrier membranes
- Provides flashing at window and door rough openings
- Counter flashes waterproofing and air barrier membranes
- For AMMA 714-19, Level 3 compliant Liquid Flashing.

Product Advantages

- No primer fast and easy application with minimum surface preparation
- No staining or residue rundown
- High movement capability
- Adhesion Strong adhesion to common construction substrates, such as wood, block, concrete, OSB, glass mat sheathing, metal, vinyl and PVC
- Compatibility Compatible with most GCP air and weather barrier systems



Application Procedures

Safety, Storage and Handling Information

Users must read and understand the product label and Safety Data Sheets (SDS's) for each system component 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 SDS's before use. The most current SDS's can be obtained from the GCP web site at qcpat.com.

PERM-A-BARRIER® Universal Flashing & Sealant is available in 20 fl oz (0.59 L) sausages and has a shelf life of 12 months from the date of manufacture when stored in the original unopened sausages between 40°F (4°C) and 80°F (27°C).

The Volatile Organic Compound (VOC) content is <20 g/L.

Surface Preparation

All surfaces must be clean, dry and free from dirt, grease oil, dust or other contaminants. PAB Universal Flashing & Sealant may be applied at temperatures 20°F (-6.67°C) and above.

Curing Time: PERM-A-BARRIER® Universal Flashing & Sealant is a moisture cure sealant. Ambient air at 50% relative humidity and at 73°F, Silyl

Modified Polyether sealants will generally skin in less than one hour and cure 1/16 of an inch per day. Lower temperature and lower relative humidity will significantly increase the skin time and cure time.

Product Application

Apply PERM-A-BARRIER[®] Universal Flashing & Sealant with a caulking or sausage gun. When used as a seal for finished terminations, edges of patches and overlaps in detail areas, level the bead with a trowel to a minimum 0.125 in. (3 mm) thickness and 0.5 in. (13 mm) to 1 in. (25 mm) width.

When sealing penetrations, apply a 1 in. (25 mm) fillet to the base of the penetration and overlap onto the GCP air and weather barrier material and penetrant a minimum of 2.5 in. (64 mm).

hen used to treat sheathing joints for GCP fluid-applied air and weather barrier membranes, completely fill the sheathing joint with sealant and then install a scratch coat of sealant with a margin trowel or similar onto the face of the sheathing approximately 1 in. (25 mm) on each side of the sheathing joint. Once the sealant is tack free, the fluid applied membrane may be applied, refer to the applicable product data sheets for detailed application instructions.

When used to treat rough opening of window/door penetrations, apply continuously at a minimum thickness of 25 mils, extended a minimum of 3" onto the surrounding wall surface.

Cleaning

Clean tools and equipment with mineral spirits. Mineral spirits is a combustible liquid and should be used only in accordance with the mineral spirits manufacturer's safety recommendations. Do not use solvents to clean hands or skin.



Limitations

PERM-A-BARRIER® Universal Flashing & Sealant should not be used in the following applications:

- PERM-A-BARRIER® Universal Flashing & Sealant has a maximum in-service temperature of 176° F (80°C).
- Under all rubberized asphalt based air and weather barrier membranes and flashing, and as a sealant over PERM-A-BARRIER® VPS 30.
- Not for use with building materials that bleed oils, plasticizers or solvents
- Firestopping applications
- Below grade

Supply

PROPERTY	TYPICAL VALUE
Color	Black
Tack Free Time or skin time	1-2 hours
Cure Time	7-14 days*
Full Adhesion	7-14 days*

Typical cured properties after 7 days cure at 77°F (25°C), 50% R.H.

Lower relative humidity and temperature will significantly extend the curing time.

PROPERTY	TYPICAL VALUE	TEST METHOD
Hardness (Shore A)	>35	ASTM C661
Elongation	>600%	ASTM D412
Ultimate Tensile Strength	150 psi	ASTM D412
Modulus @ 100% Elongation	50 psi	ASTM D412
Elastomeric Joint Sealants	Class 50	ASTM C920
Water Vapor Permeance	15 perms	ASTM E 96B1

Footnotes

 * Curing and full adhesion time will vary depending on temperature and humidity. lower temperature and humidity can significantly increase the curing time.

1. Tested at 10-12mils thick



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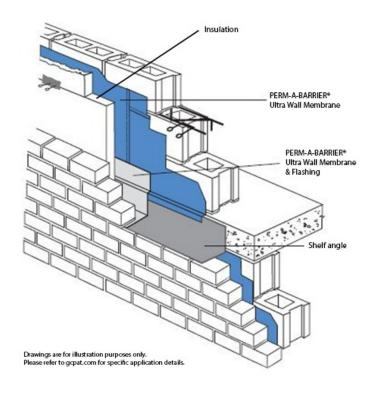
PERM-A-BARRIER® Ultra™ Wall Membrane and Flashing

100% Butyl Rubber, Aluminum Faced Self-Adhered Air & Vapor Barrier Membrane

Product Description

PERM-A-BARRIER® Ultra is a 30mil thick cold applied self-adhered membrane with cross laminated high density polyethylene film laminated to an aluminum foil and coated on high temperature 100% Butyl adhesive.

PERM-A-BARRIER[®] Ultra Wall Membranes and Flashings are ideal for protecting the building superstructure from the damaging effects of the elements. PERM-A-BARRIER Ultra Wall Membranes and Flashings minimizes air and water vapor flow through the building exterior and prevent premature deterioration of the building envelope in extreme climate, Enhance thermal performance of the structure and save energy costs.



Product Advantages

- Aggressive, conformable 100% Butyl rubber adhesive allows self-sealing around mechanical fasteners, Compatible with adjacent PERM-A-BARRIER products and variety of roofing products such as TPO & EPDM*.
- Aluminum facer provides extended UV exposure, compatible with variety of construction sealant, improved adhesion to film, dimensional stability, high tear, puncture and impact resistance
- Stable at high Inservice temperature up to 300°F, recommended for high altitude, high temperature & under metal cladding applications and parapet details.



- PERM-A-BARRIER Ultra Flashings are heavy duty commercial window and door flashing compatible with other PERM-A-BARRIER sheet and liquid applied air barriers.
- Fire resistant meets NFPA 285 as part of various wall assemblies with exterior insulations minimizes the air
- Waterproof and impermeable to moisture Impermeable to the passage of liquid water and vapor
- Airtight protects against air passage and associated energy losses. Meets ASTM E2357 standard as required by IECC 2012
- Wide temperature application window
- PERM-A-BARRIER Ultra Wall Membrane and Flashing is suitable for application above surface and ambient temperatures at 25°F (-4°C)
- AAMA 711 compliant flashings

System components

- PERM-A-BARRIER® Adhesive Primer Primer used to facilitate tenacious adhesion of PERM-A-BARRIER Ultra to the various substrate
- PERM-A-BARRIER® WB Primer high tack, water-based primer for use with PERM-A-BARRIER Ultra on various substrate
- PERM-A-BARRIER[®] Universal Flashing & Sealant one part moisture curing, STPE sealant for sealing penetrations, terminations, brick ties, final terminations, sheathing joint & flashing application.
- PERM-A-BARRIER® Wall Flashing fully adhered through wall flashing system
- PERM-A-BARRIER[®] Ultra Flashing fully adhered flashing for protecting and sealing critical detail areas. Available in 6", 9" and 12" width.

Safety & Handling

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 SDS (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 SDS before use. SDSs can be obtained from our web site or by contacting us toll free at 866-333-3726.

Storage Information

- Pallets of PERM-A-BARRIER® Ultra must not be double stacked on the job site.
- All materials must be protected from rain and physical damage.
- Store off ground under tarps with adequate ventilation or otherwise protected from rain and ground moisture. Store membrane where temperatures will not exceed 90°F (32°C) for extended periods.
- Store in dry conditions at 40°F (4.5°C)-90°F(32°C)
- Review technical letter #30 Shelf Life/Storage and Handling of GCP Waterproofing and Air Barrier Products
- Observe two (2) year shelf life and use on a first in- first out basis



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 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. It is best practice to first apply primer onto any gypsum sheathing cut edges that will receive PERM-A-BARRIER Ultra and Ultra Flashing to help reduce dust that may impact adhesion. In cold temperature installations do not apply over ice or frost.

Temperature

PERM-A-BARRIER® Ultra can be applied in dry weather when air and surface temperatures are above 25°F (-4°C).

Application

Priming of the substrate: Primer should be used prior to application of membrane. PERM-A-BARRIER® Adhesive Primer Or PERM-A-BARRIER® WB Primer can be used. Refer to Technical Letter 2, Substrate Preparation for Application of PERM-A-BARRIER® Products to Glass Mat Faced Gypsum Sheathing for priming requirements on specific glass-mat faced sheathing products.

Membrane Application

- Pre-cut PERM-A-BARRIER Ultra to easily handled lengths. Peel release liner from roll to expose adhesive and carefully position the membrane against substrate. The entirety of the membrane must be pressed firmly into place with sufficient pressure using a rubber or vinyl hand roller during application to ensure continuous and intimate contact with the substrate and to prevent water from migrating under the membrane. Overlap adjacent pieces 2 in. (51 mm) and roll overlap with a steel hand roller.
- When applying PERM-A-BARRIER Ultra to PERM-A-BARRIER® Wall Membranes and PERM-A-BARRIER® Wall
 Flashing Apply a bead of Universal Flashing & Sealant along top edges of cuts on all non-water shedding laps,
 penetrations, all laps and seams on horizontal surfaces (e.g. sill plates), critical areas and as shown in GCP detail
 drawings, and tool into place.
- All non-water shedding edges must be sealed with Universal Flashing & Sealant.
- When applying PERM-A-BARRIER Ultra to other PERM-A-BARRIER product Apply a bead of PAB Universal Flashing & Sealant along top edges, cuts, penetrations, all laps and seams on horizontal surfaces (e.g. sill plates), critical areas and as shown in GCP detail drawings, and trowel into place.
- PERM-A-BARRIER Ultra can be wet set (1 hr after application) into PERM-A-BARRIER VPL 50RS UV Stable.
 Alternatively, PERM-A-BARRIER Ultra can be applied over cured PERM-A-BARRIER VPL 50RS UV Stable (24 hrs after application).
- No reglet is necessary when installing PERM-A-BARRIER Ultra to vertical surfaces.
- (*) if tying into PVC & EPDM roofing, consult GCP Technical services for approved tie-in detailing.



Membrane Repairs

- Repairs must be made using PERM-A-BARRIER® Ultra sized to extend 6 in. (150mm) in all directions from the perimeter of the affected area.
- 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.
- When sealing the patch if placed in a diamond pattern both water sheading edges will need sealant. If the patches are placed straight, then the top edge and minimum of 3" down each side will need sealant termination.

Membrane Protection

PERM-A-BARRIER® Ultra must be protected from damage by other trades or construction materials.

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 Ultra is not intended for any other use. Contact GCP
 Technical Services where any other use is anticipated or intended.
- PERM-A-BARRIER Ultra & Ultra Flashings must not be applied in areas where it will be exposed to direct sunlight permanently and must be covered within 1 year of installation. Refer to Technical Letter 19, Exposure Guidelines for PERM-A-BARRIER Self-Adhered Membranes.
- Maximum In Service Temperature (as installed) is 300°F (149°C)
- Not recommended direct over granular surfaces.

Supply

PRODUCT	UNIT OF SALE	APPROXIMATE COVERAGE	WEIGHT	PALLETIZATION
PERM-A-BARRIER® Ultra	1 roll	210 ft2 (19.5 m2)	54 lbs/roll	25 cartons (25 rolls)
		36 in. X 70 ft (0.91 x 21.3m) roll		
PERM-A-BARRIER Ultra Flashing				
6 in. (150 mm)	6 rolls	70 linear ft per roll	9.1 lbs/roll	25 cartons (150 rolls)
9 in. (225 mm)	4 rolls	70 linear ft per roll	13.5 lbs/roll	25 cartons (100 rolls)
12 in. (300 mm)	3 roll	70 linear ft per roll	18.0 lbs/roll	25 cartons (75 rolls)
36 in. (914 mm)	1 roll	70 linear ft per roll	54 lbs/roll	25 cartons (25 rolls)
PERM-A-BARRIER Universal	1 cartridge	approx. 30 linear ft x 1/4 in. bead	29 oz. cartridge	10 cartridges/ carton
Flashing & Sealant - 29 oz.				42 cartons/ pallet
Cartridge				



Typical Properties

PROPERTY	PERM-A-BARRIER [®] Ultra	TEST METHOD
Thickness	0.03 in. (0.8 mm)	ASTM D3767 method A
Minimum tensile strength, film	5000 psi (34.5 MPa)	ASTM D882
Minimum elongation, to failure	200%	ASTM D882
Pliability, at 180° bend over 1 in. (25 mm) mandrel	Pass at -20°F (-29°C)	ASTM D1970
Nail Sealability	Pass	ASTM D1970
Minimum puncture resistance, membrane	70 lbs (311 N)	ASTM E154
Lap peel adhesion	3.5 lbs/in.	ASTM D903 Mod
Maximum permeance to water vapor transmission	<0.01 perms / 0.02 perms	ASTM E96 Method A/ Method B
Water resistance of in-place membrane	Pass	ASTM E331
Air permeance of in-place membrane ¹	< 0.02 L/s/m² (0.004cfm/ft²)	ASTM E2178
Assembly air permeance at 1.57 psf (75 Pa) pressure	< 0.02 L/s/m² (0.004cfm/ft²)	ASTM E2357
difference ¹		
Wall assembly fire test	Pass as part of various wall assemblies	NFPA 285
Peel Adhesion to Gypsum board	>5 pli	ASTM D903
Peel adhesion to concrete	>5 pli	ASTM D903

Footnote:

- 1. Air permeance measured at a pressure differential of 1.57 psf (75 Pa).
- 2. Specific wall assemblies are available at gcpat.com.

gcpat.com | North America Customer Service: 1-866-333-3726

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.

PERM-A-BARRIER is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

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

This document is only current as of the last updated date stated below and is valid only for use in the United States. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.com. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2024-08-05



Safety Data Sheet

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

1 Identification

Product identifier

Trade name: PERM-A-BARRIER® VPL 50RS UV Stable

SDS ID Number: 750

Relevant identified uses of the substance or mixture, and uses advised against:

Specialty construction product. Not intended for other uses.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

GCP Applied Technologies 2325 Lakeview Pkwy Alpharetta GA 30009 USA

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

Information department:

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

Combustible liquid.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

Label elements: The product is classified and labeled according to the Globally Harmonized System (GHS)

Hazard pictograms





Danger

Hazard statements

Combustible liquid.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

Precautionary statements

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. – No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

IF exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use CO2, powder or water spray to extinguish.

Store in a well-ventilated place. Keep cool.

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Safety Data Sheet

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® VPL 50RS UV Stable

(Cont. from page 1)

Hazard description:

NFPA ratings (scale 0 - 4)



Health = 2 Fire = 2 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *2 Flammability = 2 Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixture

Description: Mixture of the hazardous substance(s) listed below with additional nonhazardous ingredients.

Hazardous components:		
64742-47-8	Distillates (petroleum), hydrotreated light	1-<3%
2768-02-7	Trimethoxyvinylsilane	1-<3%
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	0.1-<1%
22673-19-4	Dibutyltin bis(acetylacetonate)	0.1-<1%
25973-55-1	2-(2H-Benzotriazole-2-XY)-4,6-Ditertpentyl-phenol	0.1-<1%

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

After eye contact: Rinse cautiously with water for several minutes.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Information for doctor:

Most important symptoms and effects, both acute and delayed Allergic reactions

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

(Cont. on page 3

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Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® VPL 50RS UV Stable

(Cont. from page 2)

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

Combustion products may include toxic gases such as carbon monoxide and smoke.

Advice for firefighters

Protective equipment: Wear personal protective equipment.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions: Prevent seepage into sewage system, workpits and cellars.

Methods and material for containment and cleaning up:

Dispose of the collected material according to regulations.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling Prevent formation of aerosols.

Information about protection against explosions and fires:

Empty containers may retain hazardous residue, both liquid and vapor.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: Keep respirator available.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

64742-47-8 Distillates (petroleum), hydrotreated light

EL (Canada) | Long-term value: 200 mg/m³ | Skin

2768-02-7 Trimethoxyvinylsilane

EV (Canada) Short-term value: 60 mg/m³, 10 ppm

Additional information:

The lists that were valid during the creation were used as basis.

Canadian employers must consult the exposure limits in their province.

(Cont. on page 4)

USGHS =

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® VPL 50RS UV Stable

(Cont. from page 3)

Exposure controls

Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Rubber or other impervious gloves should be worn to prevent skin contact.

Eye protection:



Safety glasses with side shield protection.

Body protection:

Use personal protective equipment as required.

Take off contaminated clothing.

9 Physical and chemical properties

Information on basic physica	l and chemical properties
General Information Appearance: Form: Color: Odor: Odor threshold:	Liquid Dark grey Characteristic Not determined.
pH-value (~):	Not determined.
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. Undetermined. 69.4 °C (156.9 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	Undetermined.
Decomposition temperature: Auto igniting: Danger of explosion:	Not determined. Product is not self-igniting. Not determined.
Explosion limits: Lower: Upper:	Not applicable. Not applicable.
Vapor pressure: Density: (~) at 20 °C (68 °F) Vapor density Evaporation rate	Not determined. 1.4 g/cm³ (11.7 lbs/gal) Not determined. Not applicable.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/wat	er): Not determined.
Viscosity: Dynamic: Kinematic: Molecular weight	Not determined. Not determined. Not determined.

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Trade name: PERM-A-BARRIER® VPL 50RS UV Stable

(Cont. from page 4)

Other information

No further relevant information available.

10 Stability and reactivity

Reactivity

Stable under normal conditions.

No further relevant information available.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

No further relevant information available.

Conditions to avoid No further relevant information available.

Incompatible materials: Strong oxidizers.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritating effect expected on the eye: No irritating effect expected inhalation: No irritating effect expected

Sensitization: May cause an allergic skin reaction.

Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

None of the ingredients are listed.

NTP (National Toxicology Program)

K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

(Cont. on page 6)

■ USGHS ■

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® VPL 50RS UV Stable

(Cont. from page 5)

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Disposal methods:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.

14 Transport information

UN-Number
DOT, IMDG, IATA
Not applicable.

UN proper shipping name

DOT, IMDG, IATA Not applicable.

Transport hazard class(es)

DOT, IMDG, IATA

Class Not applicable.

Packing group

DOT, IMDG, IATA Not applicable.

Environmental hazards: Not applicable.

Special precautions for user Not applicable.

Transport/Additional information:

DOT

Remarks: Not Regulated.

Not regulated for non-bulk over the road shipments.

UN "Model Regulation": Not applicable.

15 Regulatory information

Other regulations in domestic and foreign countries

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

None of the ingredients is listed.

SARA Section 312/Tier I & II Hazard Categories:

Physical Hazard - Flammable (gases, aerosols, liquids, or solids)

Health Hazard - Reproductive toxicity

Health Hazard - Respiratory or Skin Sensitization

(Cont. on page 7)

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® VPL 50RS UV Stable

(Cont. from page 6)

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

Inventory listing could not be confirmed for one or more substances.

Right to Know Ingredient Disclosure:

1317-65-3 Limestone

Proprietary Plasticizer - NJTSN801416176

Proprietary Resin - NJTSN801416175

California Proposition 65: (Substances <0.1% unless noted in Section 3)

Chemicals known to cause cancer:

Carbon black

Quartz (SiO2)

Naphthalene

Ethylbenzene

Toluene

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

110-54-3 n-Hexane

Chemicals known to cause developmental toxicity:

67-56-1 Methanol

108-88-3 Toluene

Carcinogenicity Categories

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

None of the ingredients are listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards. <50.0 g/l / <0.42 lb/gal

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies 2325 Lakeview Pkwy Alpharetta GA, 30009 USA USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

Contact:

The first date of preparation 02/14/2022

Number of revision times and the latest revision date 1.0 / 02/24/2022



Printing date 12/06/2016 Version Number 1.0 Reviewed on 12/06/2016

1 Identification

Product identifier

Trade name: Perm-A-Barrier Wall Flashing

SDS ID Number: 2757

Relevant identified uses of the substance or mixture, and uses advised against

Waterproofing

Specialty construction product. Not intended for other uses

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA

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

Information department:

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

Additional information:

SDS's are not required for finished articles. nevertheless, the following information is provided to assist with safe use.

Label elements:

Hazard pictograms Not applicable.

Not applicable.

Hazard statements Not applicable.

NFPA ratings (scale 0 - 4)



 $\begin{aligned} & Health = 1 \\ & Fire = 0 \\ & Reactivity = 0 \end{aligned}$

HMIS-ratings (scale 0 - 4)



 $\begin{aligned} & Health = 1 \\ & Flammability = 0 \\ & Reactivity = 0 \end{aligned}$

Other hazards Contact with residue from adhesive may cause eye and skin irritation.

Results of PBT and vPvB assessment

PBT: Not applicable.

(Cont. on page 2)

■ USGHS ■

Printing date 12/06/2016 Version Number 1.0 Reviewed on 12/06/2016

Trade name: Perm-A-Barrier Wall Flashing

vPvB: Not applicable.

(Cont. from page 1)

3 Composition/information on ingredients

Chemical characterization: Mixture Hazardous components: Not applicable.

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation: No special measures required.

After skin contact: If skin irritation occurs, consult a doctor.

After eye contact:

Rinse cautiously with water for several minutes. If symptoms persist, consult a physician.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Information for doctor:

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Special hazards arising from the substance or mixture No further relevant information available.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up: Pick up mechanically.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Avoid eye and skin contact with residue from adhesive.

(Cont. on page 3)

(Cont. from page 2)

Safety Data Sheet

Printing date 12/06/2016 Version Number 1.0 Reviewed on 12/06/2016

Trade name: Perm-A-Barrier Wall Flashing

Wash thoroughly after handling.

Wash skin after handling.

Release liners are slippery. Remove from work area immediately after membrane application.

Membrane is slippery when wet or covered with frost.

Release liners may cause slip and trip hazards.

Do not eat, drink or smoke when using this product.

For professional use only. Keep out of children's reach.

Information about protection against explosions and fires:

Removal of release liner may generate a static electrical discharge (spark).

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Avoid contact with the eyes and skin.

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Eye protection:



Safety glasses with side shield protection.

Body protection: Use personal protective equipment as required.

- USGHS

(Cont. on page 4)

Printing date 12/06/2016 Version Number 1.0 Reviewed on 12/06/2016

Trade name: Perm-A-Barrier Wall Flashing

(Cont. from page 3)

9 Physical and chemical properties				
Information on basic physical and chemical properties				
General Information Appearance: Form: Color: Odor: Odor threshold:	Solid According to product specification Characteristic Not determined.			
pH-value (~):	Not applicable.			
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. Undetermined. Not applicable.			
Flammability (solid, gaseous):	Product is not flammable.			
Decomposition temperature: Auto igniting: Danger of explosion:	Not determined. Not determined. Product does not present an explosion hazard.			
Explosion limits: Lower: Upper: VOC Content (max):	Not determined. Not determined. Not determined.			
Vapor pressure: Density: (~) Relative density Vapor density Evaporation rate	Not applicable. 1.1 LBS/CF Not determined. Not applicable. Not applicable.			
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.			
Partition coefficient (n-octanol/wate	Partition coefficient (n-octanol/water): Not determined.			
Viscosity: Dynamic: Kinematic: Molecular weight	Not applicable. Not applicable. Not applicable.			
Other information	No further relevant information available.			

10 Stability and reactivity

Reactivity Stable under normal conditions.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

Additional information: See section 7 for information on handling, storage and conditions to be avoided.

USGHS

(Cont. on page 5)

Printing date 12/06/2016 Version Number 1.0 Reviewed on 12/06/2016

Trade name: Perm-A-Barrier Wall Flashing

(Cont. from page 4)

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritating effect expected on the eye: No irritating effect expected inhalation: No irritating effect expected Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

None of the ingredients is listed.

NTP (National Toxicology Program)

K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods Comply with Federal, State and local regulations.

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Cont. on page 6)

- USGHS

Printing date 12/06/2016 Version Number 1.0 Reviewed on 12/06/2016

Trade name: Perm-A-Barrier Wall Flashing

(Cont. from page 5)

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information	
UN-Number DOT, IMDG, IATA	Not applicable.
UN proper shipping name DOT, IMDG, IATA	Not applicable.
Transport hazard class(es)	
DOT, IMDG, IATA Class	Not applicable.
Packing group DOT, IMDG, IATA	Not applicable.
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport/Additional information	on: Not classified as a dangerous good for transport by road, rail or air.
DOT Remarks:	Not Regulated.
UN "Model Regulation":	Not applicable.

			ation

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

None of the ingredients is listed.

SARA Section 312/Tier I & II Hazard Categories: None

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

California Proposition 65

Chemicals known to cause cancer:

Extracts (petroleum), heavy paraffinic distillate solvent

Polycyclic Aromatic Hydrocarbons

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

(Cont. on page 7)

Printing date 12/06/2016 Version Number 1.0 Reviewed on 12/06/2016

Trade name: Perm-A-Barrier Wall Flashing

(Cont. from page 6)

Carcinogenicity Categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

None of the ingredients is listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

Date of preparation / last revision 12/06/2016 / -

The first date of preparation 12/05/2016

Number of revision times and the latest revision date 1.0 / 12/06/2016



Printing date 05/30/2018 Version Number 1.0 Reviewed on 05/30/2018

1 Identification

Product identifier

Trade name: Perm A Barrier NPS Detail Membrane

SDS ID Number: 2916

Relevant identified uses of the substance or mixture, and uses advised against:

Waterproofing

Specialty construction product. Not intended for other uses.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA

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

Information department:

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

Additional information:

SDS's are not required for finished articles. nevertheless, the following information is provided to assist with safe use.

Label elements:

Hazard pictograms Not applicable.

Not applicable.

Hazard statements Not applicable.

NFPA ratings (scale 0 - 4)



 $\begin{aligned} & Health = 1 \\ & Fire = 0 \\ & Reactivity = 0 \end{aligned}$

HMIS-ratings (scale 0 - 4)



 $\begin{aligned} & Health = 1 \\ & Flammability = 0 \\ & Reactivity = 0 \end{aligned}$

Other hazards Contact with residue from adhesive may cause eye and skin irritation.

Results of PBT and vPvB assessment

PBT: Not applicable.

(Cont. on page 2)

■ USGHS ■

Printing date 05/30/2018 Version Number 1.0 Reviewed on 05/30/2018

Trade name: Perm A Barrier NPS Detail Membrane

vPvB: Not applicable.

(Cont. from page 1)

3 Composition/information on ingredients

Chemical characterization: Mixture Hazardous components: Not applicable.

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation: No special measures required.

After skin contact: If skin irritation occurs, consult a doctor.

After eye contact:

Rinse cautiously with water for several minutes. If symptoms persist, consult a physician.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Information for doctor:

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Special hazards arising from the substance or mixture No further relevant information available.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up: Pick up mechanically.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Avoid eye and skin contact with residue from adhesive.

(Cont. on page 3)

Printing date 05/30/2018 Version Number 1.0 Reviewed on 05/30/2018

Trade name: Perm A Barrier NPS Detail Membrane

(Cont. from page 2)

Wash thoroughly after handling.

Wash skin after handling.

Release liners are slippery. Remove from work area immediately after membrane application.

Membrane is slippery when wet or covered with frost.

Release liners may cause slip and trip hazards.

Do not eat, drink or smoke when using this product.

For professional use only. Keep out of children's reach.

Information about protection against explosions and fires:

Removal of release liner may generate a static electrical discharge (spark).

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Avoid contact with the eyes and skin.

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Eye protection:



Safety glasses with side shield protection.

Body protection: Use personal protective equipment as required.

- USGHS

(Cont. on page 4)

Printing date 05/30/2018 Version Number 1.0 Reviewed on 05/30/2018

Trade name: Perm A Barrier NPS Detail Membrane

(Cont. from page 3)

9 Physical and chemical propert	ties			
Information on basic physical and chemical properties				
General Information Appearance: Form: Color: Odor: Odor threshold:	Solid According to product specification Characteristic Not determined.			
pH-value (~):	Not applicable.			
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. Undetermined. Not applicable.			
Flammability (solid, gaseous):	Product is not flammable.			
Ignition temperature:	Undetermined.			
Decomposition temperature: Auto igniting: Danger of explosion:	Not determined. Not determined. Product does not present an explosion hazard.			
Explosion limits: Lower: Upper: VOC Content (max):	Not determined. Not determined. Not determined.			
Vapor pressure: Density: (~) Relative density Vapor density Evaporation rate	Not applicable. 1.1 LBS/CF Not determined. Not applicable. Not applicable.			
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.			
Partition coefficient (n-octanol/wate	r): Not determined.			
Viscosity: Dynamic: Kinematic: Molecular weight	Not applicable. Not applicable. Not applicable.			
Other information	No further relevant information available.			

10 Stability and reactivity

Reactivity Stable under normal conditions.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

Additional information: See section 7 for information on handling, storage and conditions to be avoided.

USGHS

(Cont. on page 5)

Printing date 05/30/2018 Version Number 1.0 Reviewed on 05/30/2018

Trade name: Perm A Barrier NPS Detail Membrane

(Cont. from page 4)

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritating effect expected on the eye: No irritating effect expected inhalation: No irritating effect expected Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

None of the ingredients is listed.

NTP (National Toxicology Program)

K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Disposal methods:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Cont. on page 6)

Printing date 05/30/2018 Version Number 1.0 Reviewed on 05/30/2018

Trade name: Perm A Barrier NPS Detail Membrane

(Cont. from page 5)

Uncleaned packagings:

Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.

14 Transport information	
UN-Number DOT, IMDG, IATA	Not applicable.
UN proper shipping name DOT, IMDG, IATA	Not applicable.
Transport hazard class(es)	
DOT, IMDG, IATA Class	Not applicable.
Packing group DOT, IMDG, IATA	Not applicable.
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport/Additional information	on: Not classified as a dangerous good for transport by road, rail or air.
DOT Remarks:	Not Regulated.
UN "Model Regulation":	Not applicable.

			ation

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

None of the ingredients is listed.

SARA Section 312/Tier I & II Hazard Categories: None

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

California Proposition 65: (Substances <0.1% unless noted in Section 3)

Chemicals known to cause cancer:

Extracts (petroleum), heavy paraffinic distillate solvent

Polycyclic Aromatic Hydrocarbons

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

(Cont. on page 7)

Printing date 05/30/2018 Version Number 1.0 Reviewed on 05/30/2018

Trade name: Perm A Barrier NPS Detail Membrane

(Cont. from page 6)

Carcinogenicity Categories

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

None of the ingredients is listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA USA: +1-617-876-1400 (24 hours) +1-800-354-5414

Date of preparation / last revision 05/30/2018 / -

The first date of preparation 05/30/2018

Number of revision times and the latest revision date 1.0 / 05/30/2018





Printing date 03/28/2018 Version Number 1.0 Reviewed on 03/28/2018

1 Identification

Product identifier

Trade name: Perm-A-Barrier Adhesive Primer

SDS ID Number: 2567

Relevant identified uses of the substance or mixture, and uses advised against:

Specialty construction product. Not intended for other uses.

Details of the supplier of the safety data sheet

Manufacturer/Supplier: GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA

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

Information department:

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

Highly flammable liquid and vapor.

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

Suspected of damaging fertility or the unborn child.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated

exposure.

May be fatal if swallowed and enters airways.

Label elements: The product is classified and labeled according to the Globally Harmonized System (GHS)

Hazard pictograms







GHS02

2 GHS07

GHS08

Danger

Hazard statements

Highly flammable liquid and vapor.

(Cont. on page 2)

Trade name: Perm-A-Barrier Adhesive Primer

(Cont. from page 1)

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

Suspected of damaging fertility or the unborn child.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse mouth.

Take off contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

Hazard description: Flammable

NFPA ratings (scale 0 - 4)



Health = 3 Fire = 3

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *3 Flammability = 3

Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixture

Description: Mixture of the hazardous substance(s) listed below with additional nonhazardous ingredients.

Hazardous components:			
79-20-9	methyl acetate	50-100%	
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	10-20%	
110-54-3	n-Hexane	10-20%	
110-82-7	cyclohexane	5-10%	
142-82-5	Heptane	5-10%	
64742-89-8	Solvent naphtha (petroleum), light aliph.	5-10%	

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.

USGHS

(Cont. on page 3)

Printing date 03/28/2018 Version Number 1.0 Reviewed on 03/28/2018

Trade name: Perm-A-Barrier Adhesive Primer

(Cont. from page 2)

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

After eye contact: Rinse cautiously with water for several minutes.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Immediately call a doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed

Harmful: may cause lung damage if swallowed.

Harmful if swallowed.

Irritating to eyes.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

Combustion products may include toxic gases such as carbon monoxide and smoke.

Advice for firefighters

Protective equipment: Wear personal protective equipment.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions: Prevent seepage into sewage system, workpits and cellars.

Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13 of the SDS.

(Cont. on page 4)

- USGHS

Trade name: Perm-A-Barrier Adhesive Primer

(Cont. from page 3)

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Prevent formation of aerosols.

Flammable mixtures with air can be formed in emptied containers. Do not puncture, cut, drill, heat or weld uncleaned drums.

Avoid contact with eyes.

Information about protection against explosions and fires:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

Empty containers may retain hazardous residue, both liquid and vapor.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility:

Use only in explosion protected area.

Keep respiratorator available.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters Components with limit values that require monitoring at the workplace:	
79-20-9 methyl acetate	
PEL (USA) Long-term value: 610 mg/m³, 200 ppm	
REL (USA) Short-term value: 760 mg/m³, 250 ppm Long-term value: 610 mg/m³, 200 ppm	
TLV (USA) Short-term value: 757 mg/m³, 250 ppm Long-term value: 606 mg/m³, 200 ppm	
110-54-3 n-Hexane	
PEL (USA) Long-term value: 1800 mg/m³, 500 ppm	
REL (USA) Long-term value: 180 mg/m³, 50 ppm	
	(Cont. on page 5)

Printing date 03/28/2018 Version Number 1.0 Reviewed on 03/28/2018

Trade name: Perm-A-Barrier Adhesive Primer

		(Cont. from page 4)
TLV (USA)	Long-term value: 176 mg/m³, 50 ppm Skin; BEI	
110-82-7 cyc	clohexane	
PEL (USA)	Long-term value: 1050 mg/m³, 300 ppm	
REL (USA)	Long-term value: 1050 mg/m³, 300 ppm	
TLV (USA)	Long-term value: 344 mg/m³, 100 ppm	
142-82-5 Не	ptane	
PEL (USA)	Long-term value: 2000 mg/m³, 500 ppm	
REL (USA)	Long-term value: 350 mg/m³, 85 ppm Ceiling limit value: 1800* mg/m³, 440* ppm *15-min	
TLV (USA)	Short-term value: 2050 mg/m³, 500 ppm Long-term value: 1640 mg/m³, 400 ppm	
Ingredients	with biological limit values:	
110-54-3 n-l	Hexane	
	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2.5-Hexanedione without hydrolysis	

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Rubber or other impervious gloves should be worn to prevent skin contact.

Eye protection:



Safety glasses with side shield protection.

Body protection:

Use personal protective equipment as required.

Take off contaminated clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:
Color:
Green
Odor:
Characteristic
Odor threshold:
Not determined.

(Cont. on page 6)

Trade name: Perm-A-Barrier Adhesive Primer

	(Cont. from page 5)
pH-value (~):	Not determined.
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. 56 °C (132.8 °F) -23 °C (-9.4 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	215 °C (419 °F)
Decomposition temperature: Auto igniting: Danger of explosion:	Not determined. Product is not self-igniting. In use, may form flammable/explosive vapor-air mixture.
Explosion limits: Lower: Upper:	1.2 Vol % Not applicable. 16 Vol %
VOC Content (max):	Not applicable. Not applicable.
Vapor pressure: Density: (~) at 20 °C (68 °F) Relative density Vapor density Evaporation rate	Not determined. 0.9 g/cm³ (7.5 lbs/gal) Not determined. Not determined. Not determined.
Solubility in / Miscibility with Water:	Fully miscible.
Partition coefficient (n-octanol/water	r); Not determined.
Viscosity: Dynamic: Kinematic: Molecular weight	Not determined. Not determined. Not applicable.
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity Stable under normal conditions.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: Strong oxidizers.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

Delayed and immediate effects and chronic effects from short or long term exposure

May cause damage to organs through prolonged or repeated exposure.

(Cont. on page 7)

Trade name: Perm-A-Barrier Adhesive Primer

(Cont. from page 6)

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:

79-20-9 methyl acetate

Dermal LD50 6,970 mg/kg (rat)

110-82-7 cyclohexane

Dermal LD50 12,705 mg/kg (rat)

Primary irritant effect:

on the skin: Causes skin irritation.on the eye: Causes serious eye irritation.inhalation: No irritating effect expected

Ingestion:

Harmful: may cause lung damage if swallowed.

May cause damage to organs through prolonged or repeated exposure.

Harmful if swallowed.

Additional toxicological information:

The product can cause inheritable damage.

Suspected of damaging fertility or the unborn child.

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

None of the ingredients is listed.

NTP (National Toxicology Program)

K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

Other adverse effects No further relevant information available.

USGHS

(Cont. on page 8)

Trade name: Perm-A-Barrier Adhesive Primer

(Cont. from page 7)

13 Disposal considerations

Disposal methods:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.

14 Transport information

UN-Number DOT, IMDG, IATA UN1133

UN proper shipping name

DOT Adhesives

IMDG ADHESIVES (HEPTANES, CYCLOHEXANE), MARINE POLLUTANT

IATA ADHESIVES

Transport hazard class(es)

DOT





Class 3 Flammable liquids
Label 3

IMDG





Class 3 Flammable liquids Label 3

IATA



Class 3 Flammable liquids

Label 3

Packing group DOT, IMDG, IATA

Environmental hazards: Product contains environmentally hazardous substances: cyclohexane, Heptane

Marine pollutant: Yes (DOT)

Symbol (fish and tree)

Special marking (ADR): Symbol (fish and tree)

(Cont. on page 9)

USGHS •

Trade name: Perm-A-Barrier Adhesive Primer

(Cont. from page 8)

Special precautions for user Warning: Flammable liquids

Danger code (Kemler): 30 EMS Number: F-E,S-D Stowage Category A

Transport/Additional information:

DOT

Remarks: Special marking with the symbol (fish and tree).

IMDG

Limited quantities (LQ) 5L Excepted quantities (EQ) 5Code: E2

> Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN 1133 ADHESIVES, 3, II, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

110-54-3 n-Hexane	10.5%
110-82-7 cyclohexane	5.3%

SARA Section 312/Tier I & II Hazard Categories:

Physical Hazard - Flammable (gases, aerosols, liquids, or solids)

Health Hazard - Carcinogenicity

Health Hazard - Acute toxicity (any route of exposure)

Health Hazard - Reproductive toxicity

Health Hazard - Skin Corrosion or Irritation

Health Hazard - Serious eye damage or eye irritation

Health Hazard - Specific target organ toxicity (single or repeated exposure)

Health Hazard - Aspiration Hazard

Health Hazard - Germ cell mutagenicity

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

California Proposition 65: (Substances <0.1% unless noted in Section 3)

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenicity Categories

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

None of the ingredients is listed.

(Cont. on page 10)

Printing date 03/28/2018 Version Number 1.0 Reviewed on 03/28/2018

Trade name: Perm-A-Barrier Adhesive Primer

(Cont. from page 9)

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

135 g/L

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA USA: +1-617-876-1400 (24 hours) +1-800-354-5414

Date of preparation / last revision 03/28/2018 / -

The first date of preparation 10/09/2015

Number of revision times and the latest revision date 1.0 / 03/28/2018



Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

1 Identification

Product identifier

Trade name: PERM-A-BARRIER WB Primer

SDS ID Number: 60142

Relevant identified uses of the substance or mixture, and uses advised against:

Specialty construction product. Not intended for other uses.

Details of the supplier of the safety data sheet

Manufacturer/Supplier: GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA

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

Information department:

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

Suspected of causing cancer.

Label elements:

Hazard pictograms



GIIDUU

Warning

Hazard statements

Suspected of causing cancer.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations.

NFPA ratings (scale 0 - 4)



 $\begin{aligned} & \text{Health} = 2 \\ & \text{Fire} = 1 \\ & \text{Reactivity} = 0 \end{aligned}$

(Cont. on page 2)

USGHS •

(Cont. from page 1)

Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

Trade name: PERM-A-BARRIER WB Primer

HMIS-ratings (scale 0 - 4)

HEALTH *2
FIRE 1
REACTIVITY 0
Health = *2
Flammability = 1
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixture

Description: Mixture of the hazardous substance(s) listed below with additional nonhazardous ingredients.

Hazardous components:

108-05-4 vinyl acetate 0.1-1.0%

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

After eye contact:

Rinse cautiously with water for several minutes.

Seek immediate medical advice.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Immediately call a doctor.

Never give anything by mouth to an unconscious person.

Information for doctor:

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Special hazards arising from the substance or mixture No further relevant information available.

(Cont. on page 3)

Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

Trade name: PERM-A-BARRIER WB Primer

(Cont. from page 2)

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up:

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Sweep up spilled product into receptacles.

Dispose contaminated material as waste according to section 13 of the SDS.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Open and handle receptacle with care.

Prevent formation of aerosols.

Avoid contact with eyes, skin and clothing.

Do not take internally.

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

Information about protection against explosions and fires: Keep respiratorator available.

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: Keep respiratorator available.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

108-05-4 vinyl acetate

REL (USA) Ceiling limit value: 15* mg/m³, 4* ppm

*15-min

TLV (USA) Short-term value: 53 mg/m³, 15 ppm

Long-term value: 35 mg/m³, 10 ppm

(Cont. on page 4)

Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

Trade name: PERM-A-BARRIER WB Primer

(Cont. from page 3)

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Avoid contact with the eyes and skin.

The usual precautionary measures for handling chemicals should be followed.

Store protective clothing separately.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands:

Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Rubber or other impervious gloves should be worn to prevent skin contact.

Material of gloves Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Eye protection:



Safety glasses with side shield protection.

Safety glasses with side shields should be worn to prevent contact due to splashing. Under high vapor mist concentrations, tightly sealed goggles should be worn.



A face shield should also be worn if there is potential exposure to splash or spray.

Body protection:

Protective work clothing

Use personal protective equipment as required.

Take off contaminated clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information Appearance:

Form.

Form: Liquid

Color: According to product specification

Odor: Characteristic
Odor threshold: Not determined.

pH-value (~) at 20°C (68 °F): 4.8

Change in condition

Melting point/Melting range: Undetermined. Boiling point/Boiling range: Undetermined. Flash point: Undetermined. Not applicable.

(Cont. on page 5)

Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

Trade name: PERM-A-BARRIER WB Primer

		(Cont. from page 4)		
Flammability (solid, gaseous):	Not applicable.			
Decomposition temperature: Auto igniting: Danger of explosion:	Not determined. Product is not self-igniting. Product does not present an explosion hazard.			
Explosion limits: Lower: Upper: VOC Content (max):	Not determined. Not determined. Not determined.			
Vapor pressure: Density: (~) Relative density Vapor density Evaporation rate	Not determined. Not determined. Not determined. Not determined. Not determined. Not determined.			
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.			
Partition coefficient (n-octanol/water): Not determined.				
Viscosity: Dynamic: Kinematic: Molecular weight	Not determined. Not applicable.			
Other information	No further relevant information available.			

10 Stability and reactivity

Reactivity Stable under normal conditions.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions No further relevant information available.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

Additional information: See section 7 for information on handling, storage and conditions to be avoided.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:				
108-05-4 vinyl acetate				
Dermal	LD50	2920 mg/kg (rat)		
	LD50	2335 mg/kg (rabbit)		

Primary irritant effect:

on the skin: No irritating effect expected on the eye: No irritating effect expected inhalation: No irritating effect expected

(Cont. on page 6)

Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

Trade name: PERM-A-BARRIER WB Primer

(Cont. from page 5)

Additional toxicological information: Suspected of causing cancer.

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

108-05-4 vinyl acetate

2B

NTP (National Toxicology Program)

K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Disposal methods:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.

14 Transport information

UN-Number DOT, IMDG, IATA

Not applicable.

(Cont. on page 7)

Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

Trade name: PERM-A-BARRIER WB Primer

		(Cont. from page 6)		
UN proper shipping name DOT, IMDG, IATA	Not applicable.			
Transport hazard class(es)				
DOT, IMDG, IATA Class	Not applicable.			
Packing group DOT, IMDG, IATA	Not applicable.			
Environmental hazards: Marine pollutant:	No			
Special precautions for user	Not applicable.			
Transport/Additional information: Not classified as a dangerous good for transport by road, rail or air.				
DOT Remarks:	Not Regulated.			
UN "Model Regulation":	Not applicable.			

15 Regulatory information

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

108-05-4 vinyl acetate

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

None of the ingredients is listed.

SARA Section 312/Tier I & II Hazard Categories: Health Hazard - Carcinogenicity

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

Right to Know Ingredient Disclosure:

25280-35-7 Acetic acid ethenyl ester

7732-18-5 | Water

California Proposition 65: (Substances <0.1% unless noted in Section 3)

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenicity Categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

(Cont. on page 8)

Printing date 08/15/2017 Version Number 1.1 Reviewed on 08/15/2017

Trade name: PERM-A-BARRIER WB Primer

(Cont. from page 7)

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

None of the ingredients is listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

10g/l (as applied)

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

Date of preparation / last revision 08/15/2017 / 1.0

The first date of preparation 11/08/2012

Number of revision times and the latest revision date 1.1 / 08/15/2017

USGHS





Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

1 Identification

Product identifier

Trade name: PERM-A-BARRIER® Universal Flashing and Sealant

SDS ID Number: 747

Relevant identified uses of the substance or mixture, and uses advised against:

Specialty construction product. Not intended for other uses.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

GCP Applied Technologies 2325 Lakeview Pkwy Alpharetta GA 30009 USA

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

Information department:

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

May cause an allergic skin reaction.

May damage fertility or the unborn child.

Additional information:

SDS's are not required for finished articles. Nevertheless, the following information is provided to assist with safe use.

Label elements: The product is classified and labeled according to the Globally Harmonized System (GHS)

Hazard pictograms





Danger

Hazard statements

May cause an allergic skin reaction.

May damage fertility or the unborn child.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

IF exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information: Avoid breathing dust.

(Cont. on page 2)

■ USGHS

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® Universal Flashing and Sealant

(Cont. from page 1)

Hazard description:

NFPA ratings (scale 0 - 4)



Health = 2 Fire = 1 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *2 Flammability = 1 Reactivity = 0

Other hazards Contact with residue from adhesive may cause eye and skin irritation.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixture

Description: Mixture of the hazardous substance(s) listed below with additional nonhazardous ingredients.

Hazardous	Hazardous components:		
1317-65-3	Limestone	50-<60%	
471-34-1	Calcium carbonate	3-<5%	
2768-02-7	Trimethoxyvinylsilane	3-<5%	
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	0.1-<1%	
22673-19-4	Dibutyltin bis(acetylacetonate)	0.1-<1%	

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

After skin contact: If skin irritation occurs, consult a doctor.

After eye contact:

Rinse cautiously with water for several minutes.

If symptoms persist, consult a physician.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Information for doctor:

Most important symptoms and effects, both acute and delayed Allergic reactions

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

(Cont. on page 3)

USGHS

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® Universal Flashing and Sealant

(Cont. from page 2)

Advice for firefighters

Protective equipment: Wear personal protective equipment.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up: Pick up mechanically.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Wash thoroughly after handling.

Avoid eye and skin contact with residue from adhesive.

Release liners are slippery. Remove from work area immediately after membrane application.

Membrane is slippery when wet or covered with frost.

Release liners may cause slip and trip hazards.

Do not eat, drink or smoke when using this product.

Wash skin after handling.

For professional use only. Keep out of children's reach.

Information about protection against explosions and fires:

Removal of release liner may generate a static electrical discharge (spark).

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: Keep respirator available.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components w	ith limit value	s that require	monitoring at	the workplace:

1317-65-3 Limestone

TWA (USA)	Short-term value: 10 mg/m³, mg/m³ ppm
	Long-term value: 10 mg/m³, mg/m³ ppm
	(Particulate matter no asbestos)

4/1-34-1 Calcium carbonate		
PEL (USA)	Long-term value: 15* 5** mg/m ³	
	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction	
REL (USA)	Long-term value: 10* 5** mg/m³ *total dust **respirable fraction	
	*total dust **respirable fraction	

(Cont. on page 4)

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® Universal Flashing and Sealant

(Cont. from page

TLV (USA) TLV withdrawn

2768-02-7 Trimethoxyvinylsilane

EV (Canada) Short-term value: 60 mg/m³, 10 ppm

Additional information:

The lists that were valid during the creation were used as basis.

Canadian employers must consult the exposure limits in their province.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Avoid contact with the eyes and skin.

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves

Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product. Rubber or other impervious gloves should be worn to prevent skin contact.

Eye protection:



Safety glasses with side shield protection.

Body protection:

Use personal protective equipment as required.

Take off contaminated clothing.

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_	 7 51000				-			

9 Physical and chemical proper	rties
Information on basic physica	l and chemical properties
General Information	
Appearance:	
Form:	Paste
Color:	Black
Odor:	Odorless
Odor threshold:	Not determined.
pH-value (~):	Not applicable.
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. Undetermined. >140 °C (>284 °F)
Flammability (solid, gaseous):	Not determined.
Ignition temperature:	Undetermined.
Decomposition temperature: Auto igniting: Danger of explosion:	Not determined. Not determined. Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
	(Cont. on page 5

ont. on page 5)

USGHS •

Version Number 1.0 **Printing date 02/24/2022** Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® Universal Flashing and Sealant

(Cont. from page 4) Not applicable. Vapor pressure: Not determined. Density: (~) Not determined. Vapor density Solubility in / Miscibility with Insoluble. Water: Partition coefficient (n-octanol/water): Not determined. **Dynamic:** Not applicable. Not applicable. **Kinematic:** Not determined. Molecular weight Other information No further relevant information available.

10 Stability and reactivity

Reactivity

Stable under normal conditions.

No further relevant information available.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

No further relevant information available.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritating effect expected on the eye: No irritating effect expected inhalation: No irritating effect expected

Sensitization: May cause an allergic skin reaction.

Additional toxicological information:

Carcinogenic categories

	rnational Agency for Research on Cancer) Human Carcinogenicity: ositive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable	
1333-86-4	Carbon black	2B
14808-60-7	Quartz (SiO2)	1
,	nal Toxicology Program) to be carcinogenic, R–May reasonably be anticipated to be carcinogenic	

14808-60-7 Quartz (SiO2) K

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

USGHS

(Cont. on page 6)

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® Universal Flashing and Sealant

(Cont. from page 5)

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Disposal methods:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.

14	ran	ispoi	וון טיז	HOLII	lation

UN-Number
DOT, IMDG, IATA

UN proper shipping name
DOT, IMDG, IATA

Not applicable.

Transport hazard class(es)

DOT, IMDG, IATA

Class Not applicable.

Packing group

DOT, IMDG, IATA Not applicable.

Environmental hazards: Not applicable.

Special precautions for user Not applicable.

Transport/Additional information:

DOT

Remarks: Not Regulated.

UN "Model Regulation": Not applicable.

USGHS

(Cont. on page 7)

Printing date 02/24/2022 Version Number 1.0 Reviewed on 02/24/2022

Trade name: PERM-A-BARRIER® Universal Flashing and Sealant

(Cont. from page 6)

15 Regulatory information

Other regulations in domestic and foreign countries

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

None of the ingredients is listed.

SARA Section 312/Tier I & II Hazard Categories:

Health Hazard - Reproductive toxicity

Health Hazard - Respiratory or Skin Sensitization

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

Right to Know Ingredient Disclosure:

1317-65-3 Limestone

1333-86-4 Carbon black

14808-60-7 Quartz (SiO2)

California Proposition 65: (Substances <0.1% unless noted in Section 3)

Chemicals known to cause cancer:

Carbon black

Quartz (SiO2)

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Carcinogenicity Categories

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

None of the ingredients are listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

1333-86-4 Carbon black

14808-60-7 Quartz (SiO2)

Volatile Organic Compounds (VOC) reported per the Emission Standards. 20 g/L

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies

2325 Lakeview Pkwy

Alpharetta GA, 30009 USA

USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

Contact:

The first date of preparation 02/24/2022

Number of revision times and the latest revision date 1.0 / 02/24/2022

USGH



Printing date 07/17/2023 Version Number 1.0 Reviewed on 07/17/2023

1 Identification

Product identifier

Trade name: Perm-A-Barrier Ultra

SDS ID Number: 1067

Relevant identified uses of the substance or mixture, and uses advised against:

Specialty construction product. Not intended for other uses.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

GCP Applied Technologies 2325 Lakeview Pkwy Alpharetta GA 30009 USA

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

Information department:

Environmental Health & Safety: USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec: +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonized System (GHS).

Label elements:

Hazard pictograms Not applicable.

Not applicable.

Hazard statements Not applicable.

Hazard description:

NFPA ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

HMIS-ratings (scale 0 - 4)



 $\begin{aligned} & Health = 0 \\ & Flammability = 0 \\ & Reactivity = 0 \end{aligned}$

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

Version Number 1.0 **Printing date 07/17/2023** Reviewed on 07/17/2023

Trade name: Perm-A-Barrier Ultra

vPvB: Not applicable.

(Cont. from page 1)

3 Composition/information on ingredients

Chemical characterization: Substances

CAS Number:

Article - NON Regulated/Hazardous Components

Additional information: This Product contains no hazardous ingredients.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation: No special measures required.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

After eye contact: Rinse cautiously with water for several minutes.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Information for doctor:

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Special hazards arising from the substance or mixture

Combustion products may include toxic gases such as carbon monoxide and smoke.

Advice for firefighters

Protective equipment: Wear personal protective equipment.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up:

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Printing date 07/17/2023 Version Number 1.0 Reviewed on 07/17/2023

Trade name: Perm-A-Barrier Ultra

(Cont. from page 2)

7 Handling and storage

Handling:

Precautions for safe handling

Avoid contact with eyes, skin and clothing.

Do not take internally.

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information:

The lists that were valid during the creation were used as basis.

Canadian employers must consult the exposure limits in their province.

Exposure controls

Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Rubber or other impervious gloves should be worn to prevent skin contact.

Eye protection:



Safety glasses with side shield protection.



A face shield should also be worn if there is potential exposure to splash or spray.

(Cont. on page 4)

Printing date 07/17/2023 Version Number 1.0 Reviewed on 07/17/2023

Trade name: Perm-A-Barrier Ultra

(Cont. from page 3)

Body protection: Use personal protective equipment as required.

9 Physical and chemical propert	9 Physical and chemical properties		
Information on basic physical	Information on basic physical and chemical properties		
General Information Appearance: Form: Color: Odor: Odor threshold:	Not determined. Not determined. Characteristic Not applicable.		
pH-value (~):	Not applicable.		
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. Undetermined. Not applicable.		
Flammability (solid, gaseous):	Product is not flammable.		
Ignition temperature:	Undetermined.		
Decomposition temperature: Auto igniting: Danger of explosion:	Not applicable under normal storage conditions. Not determined. Product does not present an explosion hazard.		
Explosion limits: Lower: Upper:	Not determined. Not determined.		
Vapor pressure: Density: (~) at 20 °C (68 °F) Vapor density	Not applicable. 1 g/cm³ (8.3 lbs/gal) Not determined.		
Solubility in / Miscibility with Water:	Soluble.		
Partition coefficient (n-octanol/wate	r): Not determined.		
Viscosity: Dynamic: Kinematic: Molecular weight	Not applicable. Not applicable. Not determined.		
Other information	No further relevant information available.		

10 Stability and reactivity

Reactivity

Stable under normal conditions.

No further relevant information available.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

No further relevant information available.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

(Cont. on page 5)

Printing date 07/17/2023 Version Number 1.0 Reviewed on 07/17/2023

Trade name: Perm-A-Barrier Ultra

(Cont. from page 4)

Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritating effect expected on the eye: No irritating effect expected inhalation: No irritating effect expected Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

Substance is not listed.

NTP (National Toxicology Program)

K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

13 Disposal considerations

Disposal methods:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

(Cont. on page 6)

Printing date 07/17/2023 Version Number 1.0 Reviewed on 07/17/2023

Trade name: Perm-A-Barrier Ultra

(Cont. from page 5)

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.

14 Transport information	on
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UN-Number
DOT, IMDG, IATA
Not applicable.

UN proper shipping name

DOT, IMDG, IATA Not applicable.

Transport hazard class(es)

DOT, IMDG, IATA

Class Not applicable.

Packing group

DOT, IMDG, IATA Not applicable.

Environmental hazards: Not applicable.

Special precautions for user Not applicable.

Transport/Additional information:

DOT

Remarks: Not Regulated.

15 Regulatory information

Other regulations in domestic and foreign countries

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

Substance is not listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

Substance is not listed.

SARA Section 312/Tier I & II Hazard Categories: None

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

Substance is listed.

CEPA (Canadian DSL):

Substance is listed.

California Proposition 65: (Substances <0.1% unless noted in Section 3)

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

(Cont. on page 7)

Printing date 07/17/2023 Version Number 1.0 Reviewed on 07/17/2023

Trade name: Perm-A-Barrier Ultra

(Cont. from page 6)

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenicity Categories

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

Substance is not listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

Substance is not listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies 2325 Lakeview Pkwy Alpharetta GA, 30009 USA

USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

Contact:

The first date of preparation 07/17/2023

Number of revision times and the latest revision date $1.0 \ / \ 07/17/2023$

- USGITS





Printing date 07/26/2023 Version Number 1.0 Reviewed on 07/26/2023

1 Identification

Product identifier

Trade name: Perm-A-Barrier Ultra Flashing

SDS ID Number: 1083

Relevant identified uses of the substance or mixture, and uses advised against:

Specialty construction product. Not intended for other uses.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

GCP Applied Technologies 2325 Lakeview Pkwy Alpharetta GA 30009 USA

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

Information department:

Environmental Health & Safety: USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours) Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec: +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonized System (GHS).

Label elements:

Hazard pictograms Not applicable.

Not applicable.

Hazard statements Not applicable.

Hazard description:

NFPA ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

HMIS-ratings (scale 0 - 4)



 $\begin{aligned} & \text{Health} = 0 \\ & \text{Flammability} = 0 \\ & \text{Reactivity} = 0 \end{aligned}$

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

Printing date 07/26/2023 Version Number 1.0 Reviewed on 07/26/2023

Trade name: Perm-A-Barrier Ultra Flashing

vPvB: Not applicable.

(Cont. from page 1)

3 Composition/information on ingredients

Chemical characterization: Substances

CAS Number:

Article - NON Regulated/Hazardous Components

Additional information: This Product contains no hazardous ingredients.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation: No special measures required.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

After eye contact: Rinse cautiously with water for several minutes.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Information for doctor:

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Special hazards arising from the substance or mixture

Combustion products may include toxic gases such as carbon monoxide and smoke.

Advice for firefighters

Protective equipment: Wear personal protective equipment.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up:

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Printing date 07/26/2023 Version Number 1.0 Reviewed on 07/26/2023

Trade name: Perm-A-Barrier Ultra Flashing

(Cont. from page 2)

7 Handling and storage

Handling:

Precautions for safe handling

Avoid contact with eyes, skin and clothing.

Do not take internally.

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information:

The lists that were valid during the creation were used as basis.

Canadian employers must consult the exposure limits in their province.

Exposure controls

Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Rubber or other impervious gloves should be worn to prevent skin contact.

Eye protection:



Safety glasses with side shield protection.



A face shield should also be worn if there is potential exposure to splash or spray.

(Cont. on page 4)

Printing date 07/26/2023 Version Number 1.0 Reviewed on 07/26/2023

Trade name: Perm-A-Barrier Ultra Flashing

(Cont. from page 3)

Body protection: Use personal protective equipment as required.

9 Physical and chemical propert	ies
Information on basic physical	and chemical properties
General Information Appearance: Form: Color: Odor: Odor threshold:	Not determined. Not determined. Characteristic Not applicable.
pH-value (~):	Not applicable.
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. Undetermined. Not applicable.
Flammability (solid, gaseous):	Product is not flammable.
Ignition temperature:	Undetermined.
Decomposition temperature: Auto igniting: Danger of explosion:	Not applicable under normal storage conditions. Not determined. Product does not present an explosion hazard.
Explosion limits: Lower: Upper:	Not determined. Not determined.
Vapor pressure: Density: (~) at 20 °C (68 °F) Vapor density	Not applicable. 1 g/cm³ (8.3 lbs/gal) Not determined.
Solubility in / Miscibility with Water:	Soluble.
Partition coefficient (n-octanol/water	r): Not determined.
Viscosity: Dynamic: Kinematic: Molecular weight	Not applicable. Not applicable. Not determined.
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity

Stable under normal conditions.

No further relevant information available.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

No further relevant information available.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

(Cont. on page 5)

Printing date 07/26/2023 Version Number 1.0 Reviewed on 07/26/2023

Trade name: Perm-A-Barrier Ultra Flashing

(Cont. from page 4)

Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritating effect expected on the eye: No irritating effect expected inhalation: No irritating effect expected Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

Substance is not listed.

NTP (National Toxicology Program)

K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

13 Disposal considerations

Disposal methods:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

(Cont. on page 6)

Printing date 07/26/2023 Version Number 1.0 Reviewed on 07/26/2023

Trade name: Perm-A-Barrier Ultra Flashing

(Cont. from page 5)

Recommendation:



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.

14 Transport information

UN-Number
DOT, IMDG, IATA
Not applicable.

UN proper shipping name

DOT, IMDG, IATA Not applicable.

Transport hazard class(es)

DOT, IMDG, IATA

Class Not applicable.

Packing group

DOT, IMDG, IATA Not applicable.

Environmental hazards: Not applicable.

Special precautions for user Not applicable.

Transport/Additional information:

DOT

Remarks: Not Regulated.

15 Regulatory information

Other regulations in domestic and foreign countries

SARA (Superfund Amendments and Reauthorization Act)

Section 302/304 (extremely hazardous substances):

Substance is not listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

Substance is not listed.

SARA Section 312/Tier I & II Hazard Categories: None

North America Chemical Inventory Status

TSCA (Toxic Substances Control Act - United States):

Substance is not listed.

CEPA (Canadian DSL):

Substance is not listed.

California Proposition 65: (Substances <0.1% unless noted in Section 3)

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

(Cont. on page 7)

Printing date 07/26/2023 Version Number 1.0 Reviewed on 07/26/2023

Trade name: Perm-A-Barrier Ultra Flashing

(Cont. from page 6)

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenicity Categories

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)

Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable

Substance is not listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

Substance is not listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies 2325 Lakeview Pkwy Alpharetta GA, 30009 USA

USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

Contact:

The first date of preparation 07/26/2023

Number of revision times and the latest revision date 1.0 / 07/26/2023

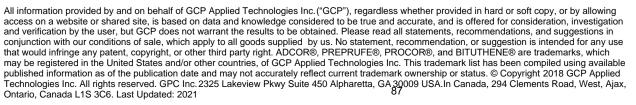
USGHS



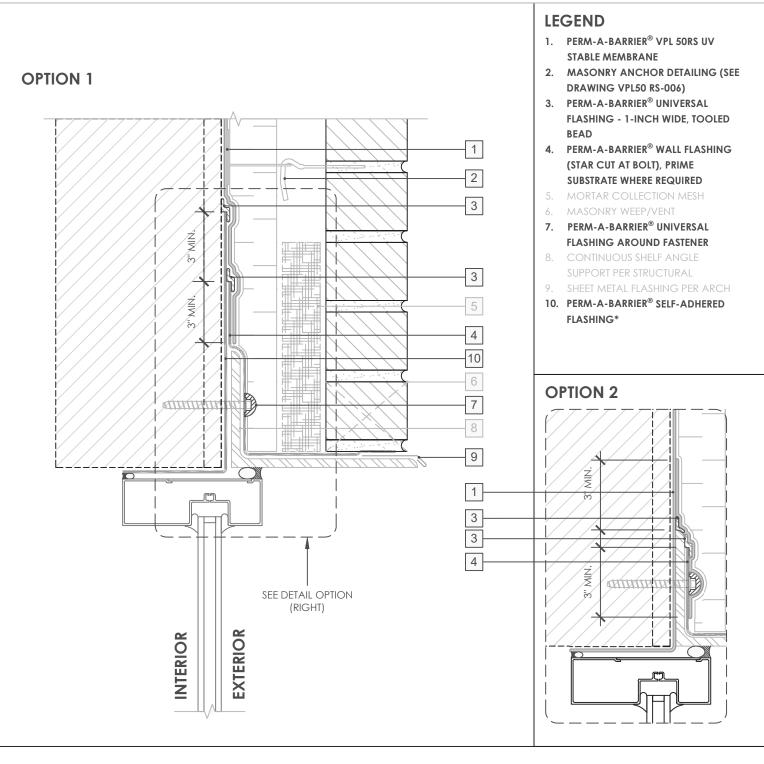
PERM-A-BARRIER VPL 50RS

Five Year Materia	al Warranty
WARRANTY NO	
NAME OF BUILDING	
LOCATION OF BUILDIN	G
NAME OF OWNER	
CONTRACTOR	
PRODUCT(S) USED	PERM-A-BARRIER® VPL 50RS UV Stable
TOTAL AREA (SF)	
DATE OF COMPLETED	INSTALLATION
installation identified aborinstalled and used in strict according to ASTM E 2176	Inc. ("GCP") hereby warrants that for a period of Five (5) years from the date of completion of ye, the air permeance of a continuous coating of PERM-A-BARRIER® VPL 50RS Membrane when t conformance with the written instructions of GCP will not exceed 0.02 L/s.m² when tested at a pressure differential of 75 Pa, and the vapor permeance of PERM-A-BARRIER® VPL 50RS and used in strict conformance with the written instructions of GCP will be no less than 10.0 perms ASTM E96 Method B.
with this warranty, then (Five (5) year period the PERM-A-BARRIER® VPL 50RS Membrane is found by GCP not to comply GCP will supply to the owner replacement PERM-A-BARRIER® VPL 50RS Membrane in a quantity and to be nonconforming, with a value not to exceed the purchase price for the material paid to GCP in.
BARRIER® VPL 50RS Mem materials, acts of God, m the subject structure or to does not cover any costs sheathing or facade in co	oply to any failure caused by or due to workmanship or improper installation of the PERM-A-librane, abuse of the PERM-A-BARRIER® VPL 50RS Membrane, or chemical incompatibility with other overment or cracks in excess of 1/16 inch of the immediate substrate, inadequate or faulty design of o repairs or installations made by other persons not authorized by GCP. In addition, this warranty or expenses associated with 1) the removal or replacement of any material including the exterior nuection with the testing, repair, removal or replacement of the PERM-A-BARRIER® VPL 50RS less or repairs of any kind or nature to the subject building or its' contents from air, vapor, water or
EXPRESS OR IMPLIED, IN FOR A PARTICULAR PURP THOSE HEREIN PROVIDE FOR ANY DAMAGE TO TH INCIDENTAL, CONSEQUE	NTY IS EXCLUSIVE AND IS IN LIEU OF ANY AND ALL OTHER GUARANTEES OR WARRANTIES, CLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS OSE. THE REMEDIES OF THE OWNER FOR ANY BREACH OF THIS WARRANTY SHALL BE LIMITED TO DO TO THE EXCLUSION OF ANY AND ALL OTHER REMEDIES. GCP SHALL NOT BE LIABLE IN ANY CASE BUILDING OR THE CONTENTS THEREOF, NOR WILL IT BE RESPONSIBLE FOR SPECIAL, NTIAL, OR PENAL DAMAGES. NO AGREEMENT VARYING OR EXTENDING THE FOREGOING ILL BE BINDING UPON GCP UNLESS IN WRITING, SIGNED BY A DULY AUTHORIZED OFFICER OF
GCP Applied Technologies	Inc.
By Title	Date

gcpat.com







GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



OPTION 1

SEE DETAIL OPTION

(RIGHT)

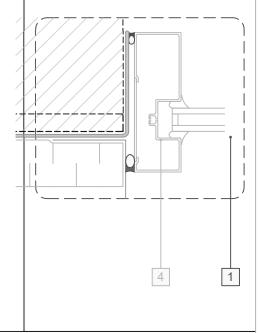
S 4 3 2 1

LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL 50RS UV STABLE-006)
- 3. PERM-A-BARRIER® SELF-ADHERED FLASHING* PRIME SUBSTRATE WHERE REQUIRED
- 4. SHEET METAL FLASHING PER ARCH
- 5. INTERIOR AIR BARRIER SEALANT OVER BACKER ROD AT WINDOW PERIMETER

OPTION 2

INTERIOR



GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



WINDOW JAMB DETAIL - MASONRY CLADDING

PERM-A-BARRIER® VPL 50RS

I	DRAWING:	VPL50RS-002
1	SCALE:	3" = 1'
	EFFECTIVE DATE:	2020.05.21
ĺ	SUPERCEDES:	NEW

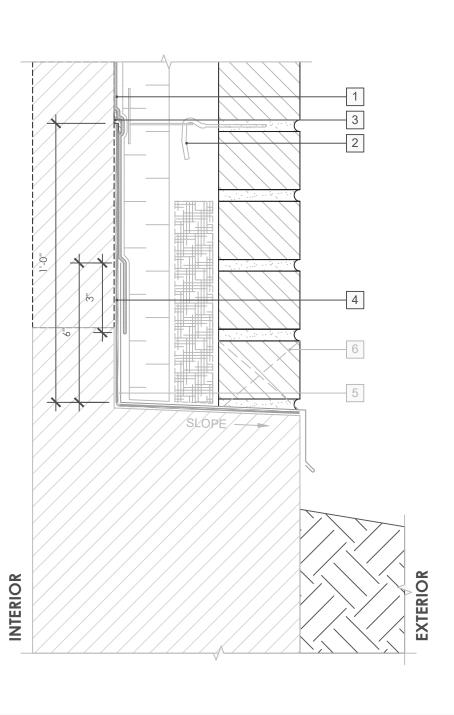
LEGEND 1. NON-FLANGED WINDOW SYSTEM 2. INTERIOR AIR BARRIER SEALANT OVER BACKER ROD AT WINDOW PERIMETER **OPTION 1** 3. SHEET METAL FLASHING -SANDWICHED BETWEEN INTERMITTENT SHIMS 4. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED 5. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE SEE DETAIL OPTION (RIGHT) **OPTION 2** 2 4 5 **EXTERIOR** NTERIOR

GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.





LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- MASONRY ANCHOR DETAILING (SEE DRAWING VPL50RS-006)
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 4. PERM-A-BARRIER® WALL FLASHING PRIME SUBSTRATE WHERE REQUIRED
- 5. SHEET METAL FLASHING PER ARCH
- 6. MASONRY WEEP/VENT

GENERAL NOTES

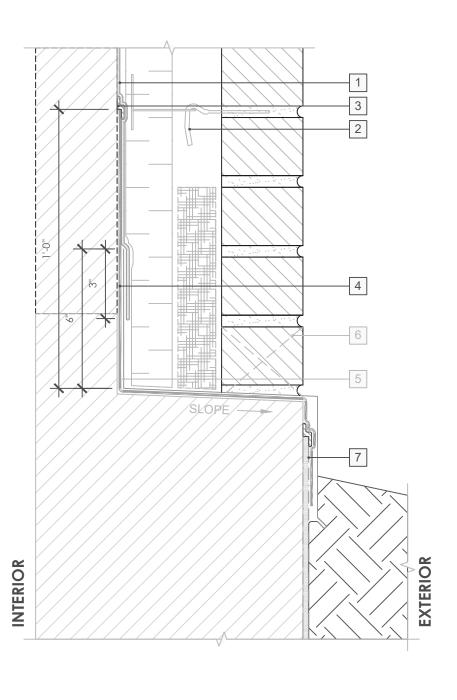
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



BASE-OF-WALL DETAIL (ALTERNATE 1)

DRAWING: 1)	VPL50RS-004 (ALT
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 4. PERM-A-BARRIER® WALL FLASHING
- 5. SHEET METAL FLASHING PER ARCH
- 6. MASONRY WEEP/
- 7. BELOW GRADE WATERPROOFING SYSTEM - SEE GCPAT.COM

NOTE

 CONSULT GCP FOR BELOW GRADE WATERPROOFING COMPATIBILITY AND CONNECTION

GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

stRefer to air barrier system product data sheet for acceptable self-adhered flashing products.



BASE-OF-WALL DETAIL (ALTERNATE 2)

DRAWING: 2)	VPL50RS-004 (ALT
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW

3 2 8 5 SEE VPL50RS-004 (OPTION 1) FOR 2D DETAIL

LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- MASONRY ANCHOR DETAILING (SEE DRAWING VPL50RS-006)
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 4. PERM-A-BARRIER® WALL FLASHING PRIME SUBSTRATE WHERE REQUIRED
- 5. SHEET METAL FLASHING PER ARCH
- 6. GROUT SOLID TO HEIGHT OF CURB SLOPE TOP
- 7. BELOW GRADE WATERPROOFING SYSTEM - SEE GCPAT.COM
- 8. MASONRY WEEP/VENT

GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



BASE-OF-WALL FLASHING SEQUENCE (OPTION 1)

	DRAWING:	VPL50RS-004 (3D-1)
$\frac{1}{1}$	SCALE:	3" = 1'
	EFFECTIVE DATE:	2022.04.25
ĺ	SUPERCEDES:	NEW

1 2 3 4 3 Z 5 9 6 SLOPE 7 **EXTERIOR** NTERIOR SEE VPL50RS-004 (3D-1) FOR 3D DETAIL

LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- MASONRY ANCHOR DETAILING (SEE DRAWING VPL50RS-006)
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 4. PERM-A-BARRIER® SELF-ADHERED FLASHING* PRIME SUBSTRATE WHERE REQUIRED
- 5. PERM-A-BARRIER® WALL FLASHING PRIME SUBSTRATE WHERE REQUIRED
- 6. BELOW GRADE WATERPROOFING SYSTEM SEE GCPAT.COM
- 7. SHEET METAL FLASHING PER ARCH
- 8. GROUT SOLID TO HEIGHT OF CURB SLOPE TOP
- 9. MASONRY WEEP/VENT

GENERAL NOTES

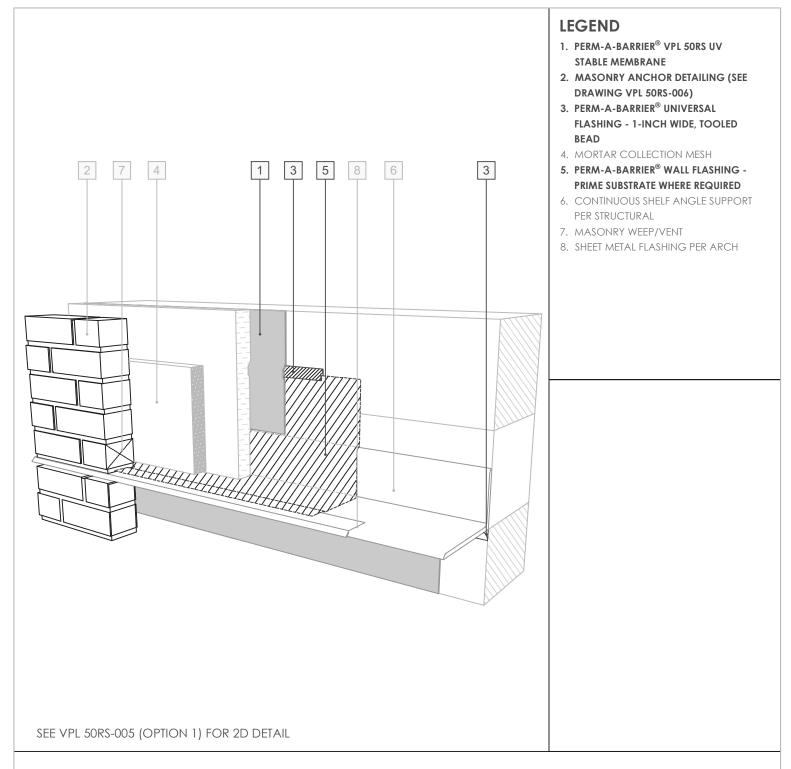
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



BASE-OF-WALL DETAIL - MASONRY CLADDING

DRAWING:	VPL50RS-004
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



GENERAL NOTES

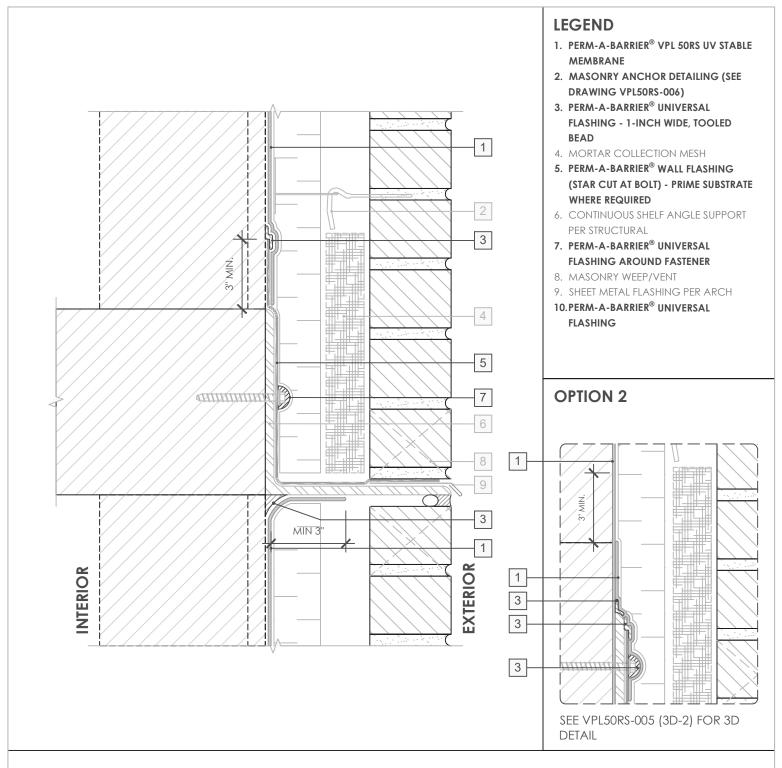
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

 $\hbox{*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.}$



FLOOR LINE FLASHING SEQUENCE - MASONRY CLADDING

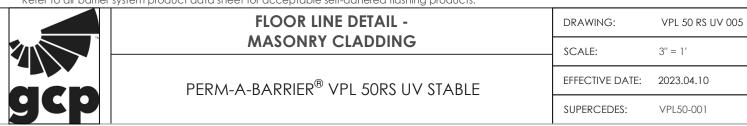
DRAWING:	VPL 50RS UV-005 ALT 1
SCALE:	3'' = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



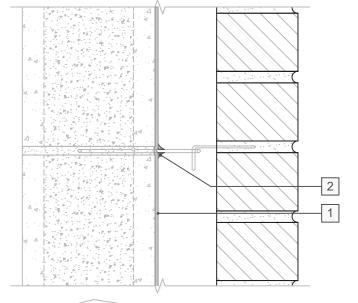
GENERAL NOTES

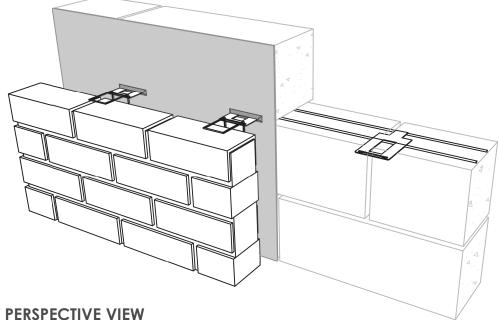
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



SECTION VIEW





LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. PERM-A-BARRIER® UNIVERSAL FLASHING FILLET SURROUNDING WIRE TIE PENETRATION

NOTE

 ALL CMU JOINTS TO BE STRUCK FULL AND FLUSH

GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

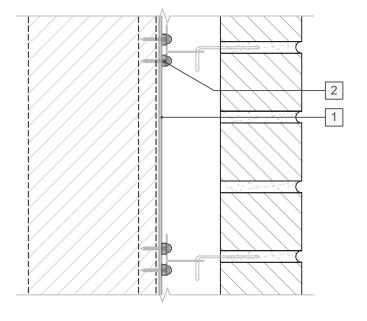
*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



MASONRY ANCHOR OPTION - CMU SUBSTRATE

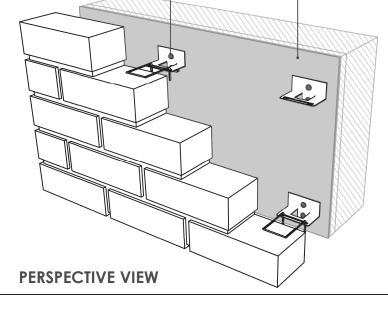
DRAWING:	VPL50RS-006A
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW

SECTION VIEW



LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. PERM-A-BARRIER® UNIVERSAL FLASHING AROUND FASTENER AT FRONT AND BACK FACE OF MASONRY ANCHOR



GENERAL NOTES

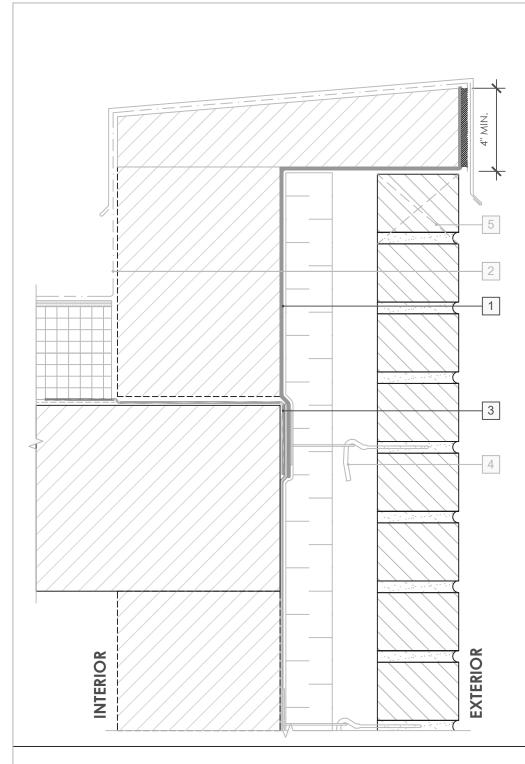
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



MASONRY ANCHOR OPTION - FRAMED SUBSTRATE

DRAWING:	VPL50RS-006B
SCALE:	3" = 1'
EFFECTIVE DATE:	2022.04.25
SUPERCEDES:	NEW



LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. ROOF MEMBRANE AND ROOF DETAILS
- 3. PERM-A-BARRIER® SELF-ADHERED FLASHING* PRIME SUBSTRATE WHERE REQUIRED
- MASONRY ANCHOR DETAILING (SEE DRAWING VPL50RS-006)
- 5. MASONRY WEEP/VENT

NOTE

 CONSULT GCP & ROOFING MANUFACTURER FOR COMPATIBILITY AND CONNECTION AT ROOF INTERFACE

GENERAL NOTES

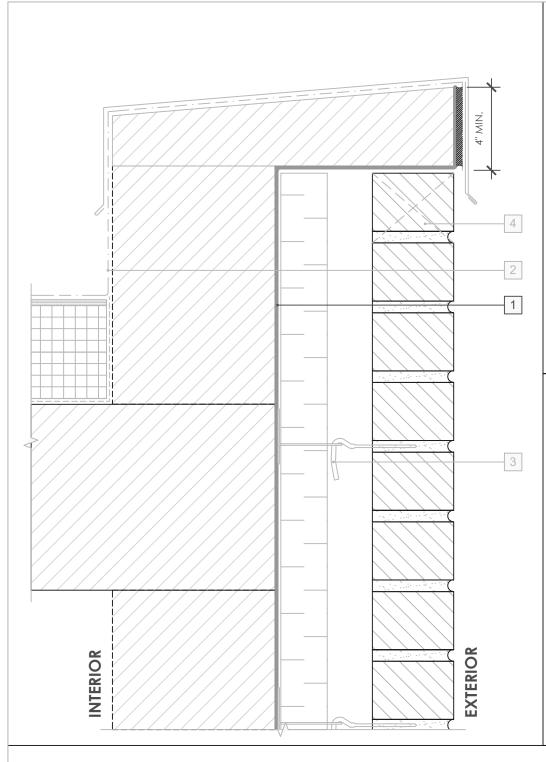
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



PARAPET DETAIL - MASONRY CLADDING (ALTERNATE)

DRAWING:	VPL50RS-007 (ALT)
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. ROOF MEMBRANE AND ROOF DETAILS
- 3. MASONRY ANCHOR DETAILING (SEE DRAWING VPL50RS-006)
- 4. MASONRY WEEP/VENT

NOTE

CONSULT GCP & ROOFING
 MANUFACTURER FOR COMPATIBILITY
 AND CONNECTION AT ROOF
 INTERFACE

GENERAL NOTES

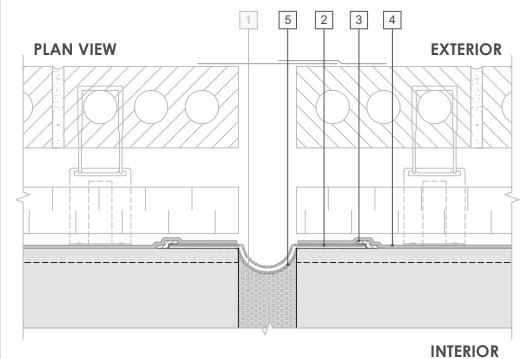
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



PARAPET DETAIL - MASONRY CLADDING

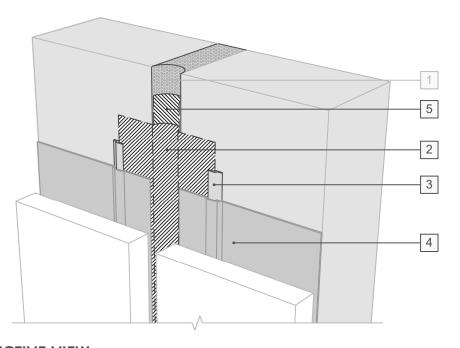
DRAWING:	VPL50RS-007
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



- 1. COMPRESSIBLE JOINT FILLER -MAXIMUM 4-INCH WIDE JOINT CAPABLE OF A MAXIMUM 50% MOVEMENT IN COMPRESSION AND ELONGATION
- 2. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING - 1-INCH WIDE, TOOLED RFAD
- 4. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 5. PERM-A-BARRIER® SELF-ADHERED FLASHING* - INVERTED STRIP

NOTE

- WIDTH OF THE INVERTED STRIP SHALL BE TWICE THE WIDTH OF THE **EXPANSION JOINT TO** ACCOMMODATE MOVEMENT - ALL SEAMS, OVERLAPS, JOINTS, AND **EDGES SEALED WITH \$100**
- MAXIMUM 4 INCH WIDE JOINT CAPABLE OF A MAXIMUM 50% MOVEMENT IN COMPRESSION AND ELONGATION
- CLADDING AND CLOSURE BY OTHERS NOT SHOWN FOR CLARITY



PERSPECTIVE VIEW

GENERAL NOTES

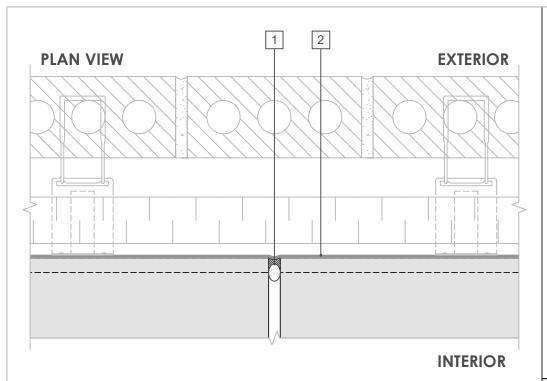
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*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



EXPANSION JOINT DETAIL

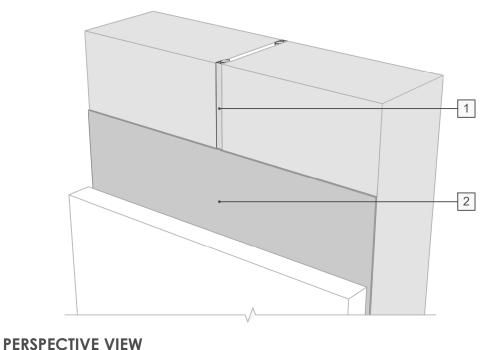
DRAWING:	VPL 50 RS UV-008
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



- BACKER ROD AND COMPATIBLE SEALANT
- 2. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE



 CONSULT GCP TO CONFIRM SEALANT COMPATIBILITY



GENERAL NOTES

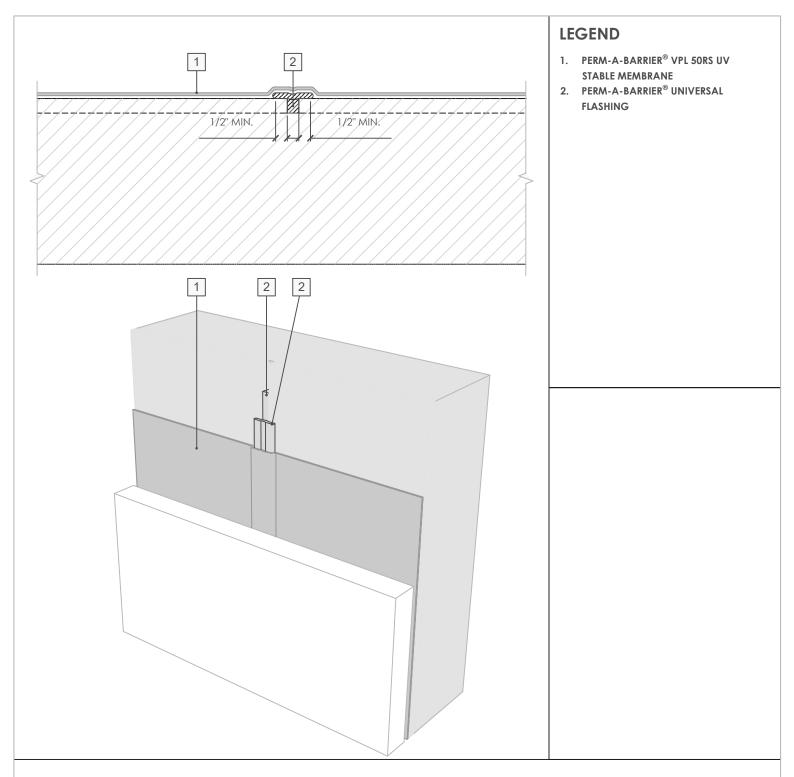
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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 ${}^*\!\text{Refer}$ to air barrier system product data sheet for acceptable self-adhered flashing products.

Ρ



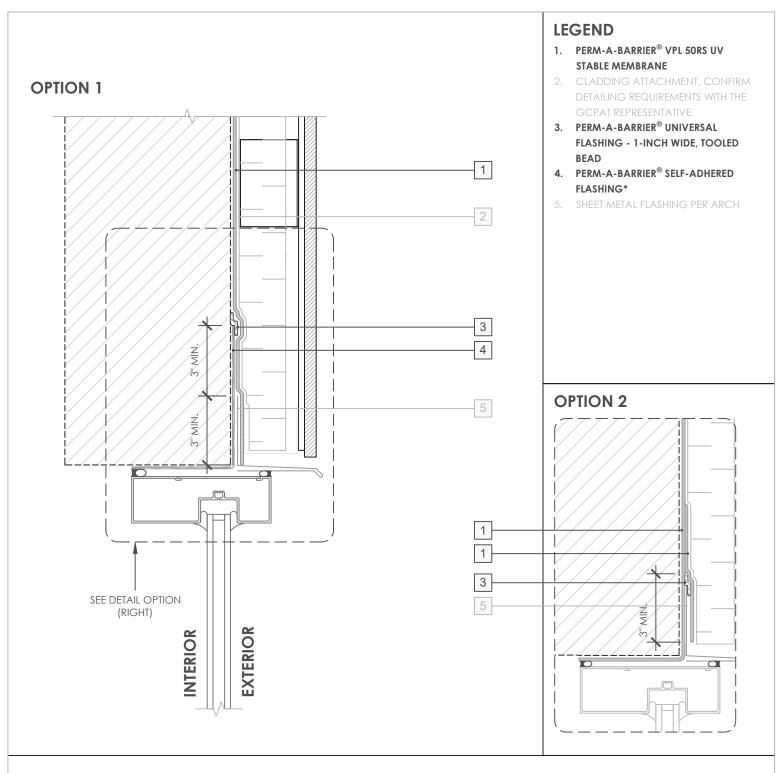
CONTROL JOINT DETAIL	DRAWING:	VPL50RS-009A
	SCALE:	3" = 1'
PERM-A-BARRIER® VPL 50RS UV STABLE	EFFECTIVE DATE:	2023.04.10
	SUPERCEDES:	NEW



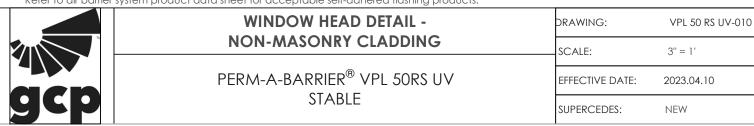
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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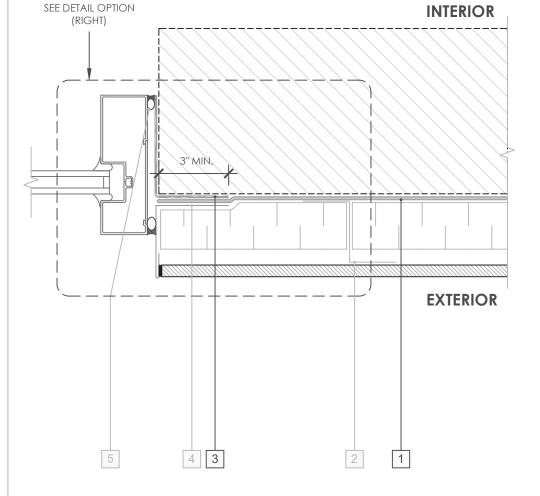
١	SHEATHING JOINT TREATMENT	DRAWING:	VPL50RS-009B
154		SCALE:	3" = 1'
	PERM-A-BARRIER® VPL 50RS UV STABLE	EFFECTIVE DATE:	2022.04.25
		SUPERCEDES:	VPL50-007



- Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
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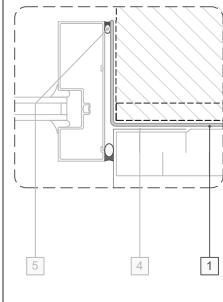
OPTION 1



LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 3. PERM-A-BARRIER® SELF-ADHERED FLASHING*
- 4. SHEET METAL FLASHING PER ARCH
- 5. INTERIOR AIR SEALANT OVER BACKER ROD

OPTION 2



GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



WINDOW JAMB DETAIL - NON-MASONRY CLADDING

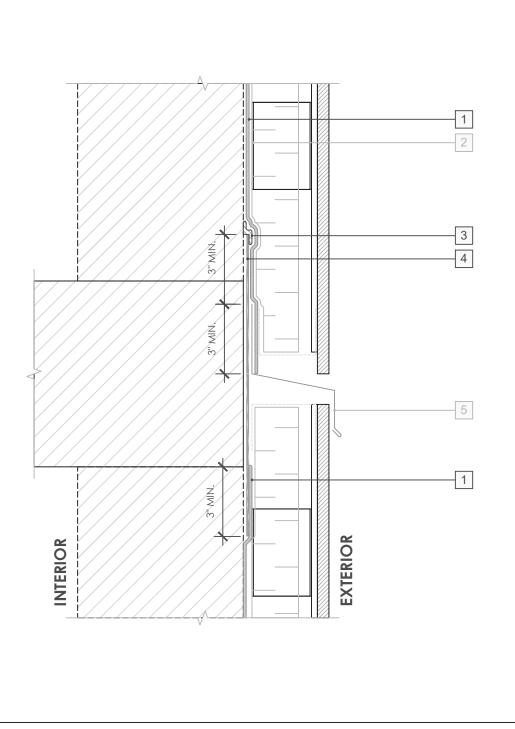
DRAWING:	VPL 50 RS UV-011
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW

LEGEND 1. NON-FLANGED WINDOW SYSTEM 2. INTERIOR AIR SEALANT OVER BACKER ROD **OPTION 1** SHEET METAL FLASHING SANDWICHED BETWEEN 1/4" SHIMS 4. PERM-A-BARRIER® SELF-ADHERED FLASHING* (RAW EDGE SEALED WITH **UNIVERSAL FLASHING)** 5. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE SEE DETAIL OPTION (RIGHT) **OPTION 2** 4 5 6 **EXTERIOR** NTERIOR

GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.





- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 4. PERM-A-BARRIER® SELF-ADHERED FLASHING*
- 5. SHEET METAL FLASHING PER ARCH

GENERAL NOTES

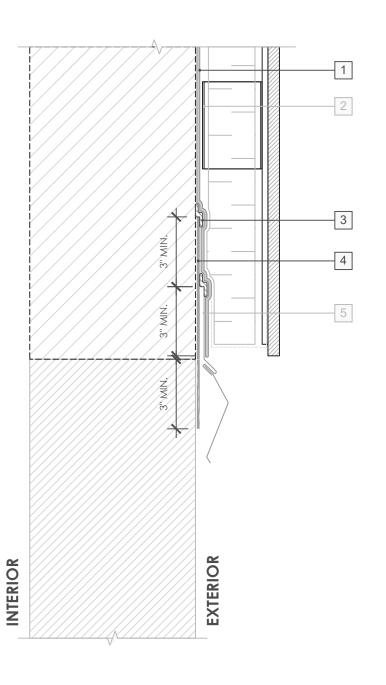
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
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- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



FLOOR LINE DETAIL -NON-MASONRY CLADDING

DRAWING:	VPL 50 RSUV-013
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 4. PERM-A-BARRIER® SELF-ADHERED FLASHING*
- 5. TWO-PIECE SHEET METAL FLASHING PER ARCH

NOTE

 CONFIRM MAXIMUM SERVICE TEMPERATURE OF PERM-A-BARRIER PRODUCTS DIRECTLY UNDER EXPOSED METAL FLASHING

GENERAL NOTES

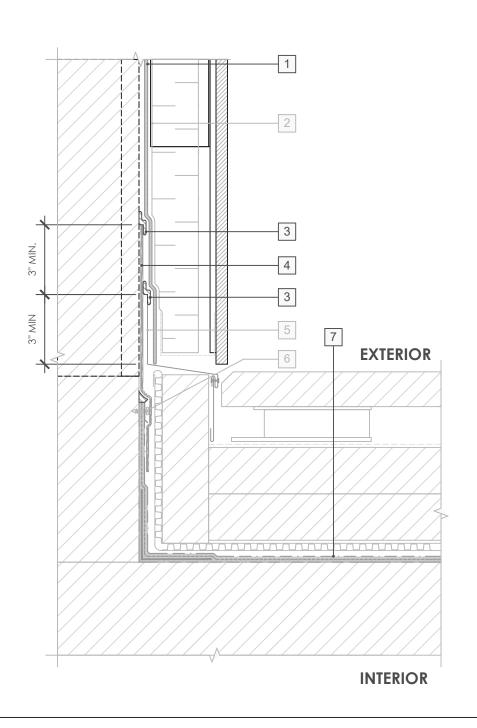
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



CONCRETE STEM WALL - NON-MASONRY CLADDING

DRAWING:	VPL 50 RSUV-014
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 4. PERM-A-BARRIER® SELF-ADHERED FLASHING*
- 5. SHEET METAL FLASHING PER ARCH
- 6. TERMINATION PER HORIZONTAL WATERPROOFING SYSTEM MANUFACTURER
- 7. HORIZONTAL WATERPROOFING SYSTEM - SEE GCPAT.COM

NOTE

 CONSULT GCP FOR HORIZONTAL WATERPROOFING COMPATIBILITY AND CONNECTION

GENERAL NOTES

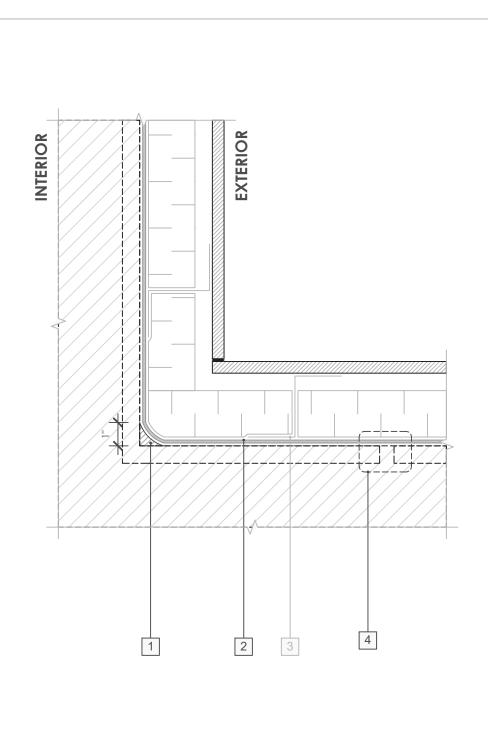
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



BASE-OF-WALL DETAIL - NON-MASONRY CLADDING

DRAWING:	VPL 50RS UV-015
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	VPL50-004



- 1. PERM-A-BARRIER® UNIVERSAL FLASHING 1-INCH WIDE, TOOLED BEAD
- 2. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 3. CLADDING ATTACHMENT, DETAIL PER GCPAT REQUIREMENTS
- JOINT TREATMENT PER DRAWING VPL50RS-009B

GENERAL NOTES

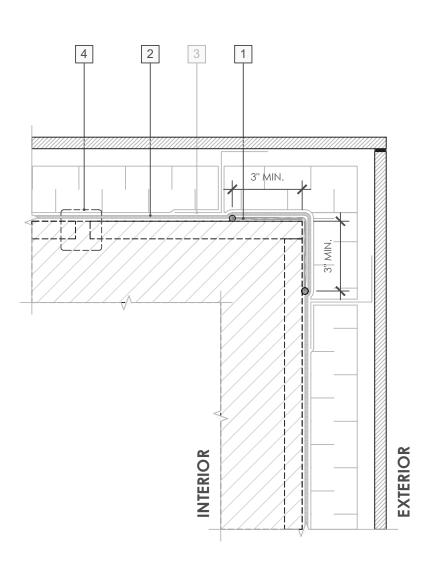
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



INSIDE CORNER - NON-MASONRY CLADDING

DRAWING:	VPL 50RS UV-016
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	VPL50-002



- PERM-A-BARRIER® SELF-ADHERED
 FLASHING (RAW EDGE TERMINATED
 WITH UNIVERSAL FLASHING)
- 2. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 3. CLADDING ATTACHMENT, DETAIL PER GCPAT REQUIREMENTS
- JOINT TREATMENT PER DRAWING VPL50RS-009B

NOTE

 AT CMU OR CAST-IN-PLACE CONCRETE CONSTRUCTION, SELF ADHERED FLASHING AT OUTSIDE CORNERS IS OPTIONAL PROVIDED SUBSTRATE ALLOWS FOR CONTINUOUS AND REQUIRED SYSTEM THICKNESS

GENERAL NOTES

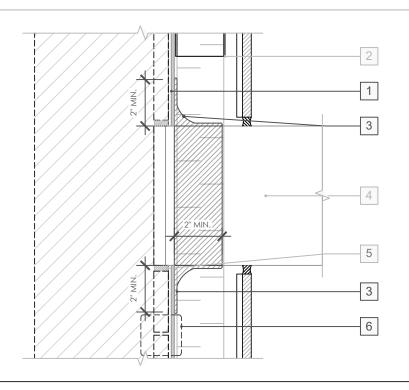
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

stRefer to air barrier system product data sheet for acceptable self-adhered flashing products.

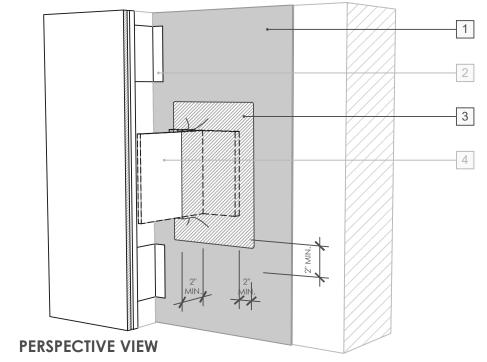


OUTSIDE CORNER - NON-MASONRY CLADDING

DRAWING:	VPL 50RS UV-017
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	VPL50-003



- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 2. CLADDING ATTACHMENT CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING AND CANT SEAL
- 4. KNIFE PLATE PENETRATION
- 5. GCP APPROVED SEALANT OR NON-SHRINK GROUT PER BACKUP WALL TYPE
- JOINT TREATMENT PER DETAIL VPL50RS-009B



GENERAL NOTES

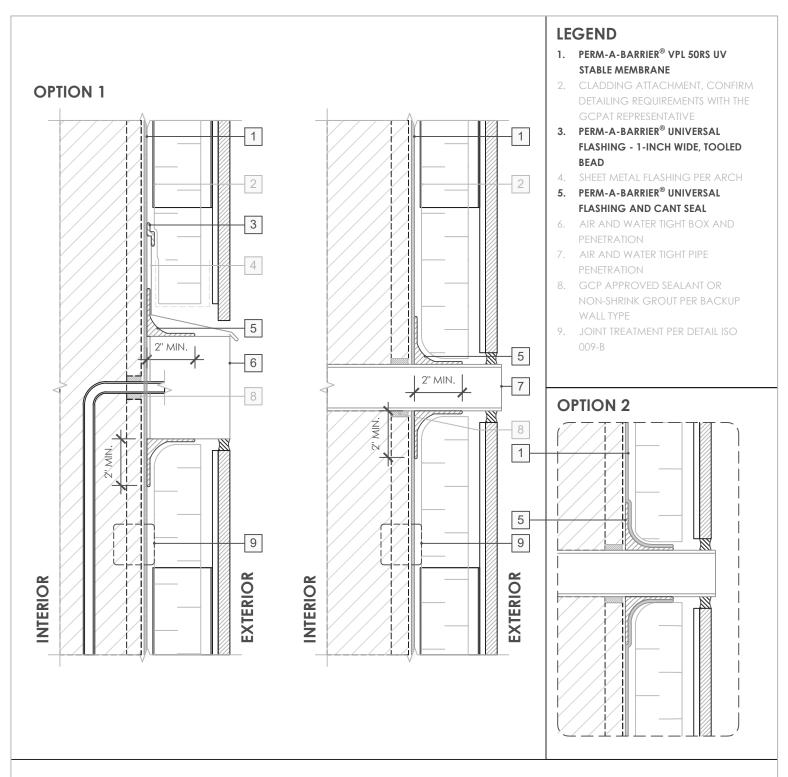
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



KNIFE PLATE PENETRATION DETAIL - NON-MASONRY CLADDING

DRAWING:	VPL 50RS UV-018
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW



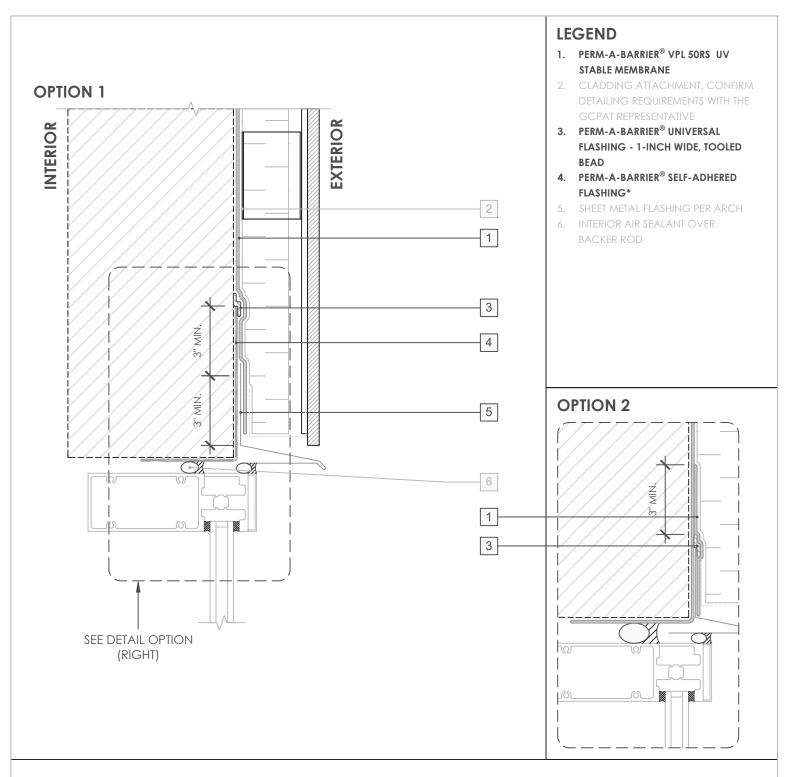
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



PENETRATION DETAILS - NON-MASONRY CLADDING

DRAWING:	VPL 50RS UV-019
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	VPL50-005



- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.



OPTION 1

SEE DETAIL OPTION

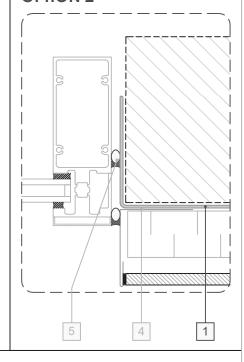
(RIGHT) 3"MIN. EXTERIOR

LEGEND

- 1. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING *
- 4. SHEET METAL FLASHING PER ARCH
- 5. INTERIOR AIR SEALANT OVER BACKER ROD

OPTION 2

INTERIOR



GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- GCP products are indicated in the detail legend in BOLDFACE font. Detail components by others are indicated in GRAY FONT. Install
 components per manufacturer and project specific requirements.

stRefer to air barrier system product data sheet for acceptable self-adhered flashing products.



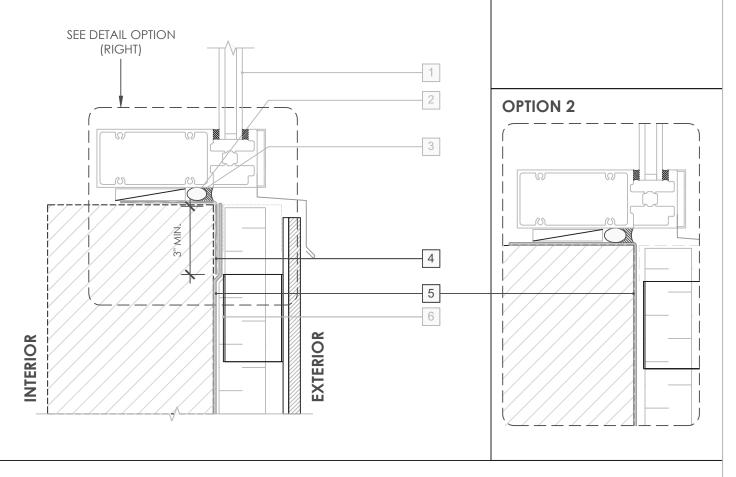
WINDOW JAMB DETAIL - NON-MASONRY CLADDING

-	
DRAWING:	VPL 50RS UV-021
SCALE:	3" = 1'
EFFECTIVE DATE:	2023.04.10
SUPERCEDES:	NEW

OPTION 1

LEGEND

- CURTAINWALL SILL OVER STARTER
 TRACK INTERIOR AIR SEALANT OVER
 BACKER ROD
- 2. SHEET METAL FLASHING
 SANDWICHED BETWEEN 1/4" SHIMS
- 3. PERM-A-BARRIER® UNIVERSAL FLASHING *
- 4. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 5. CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE



GENERAL NOTES

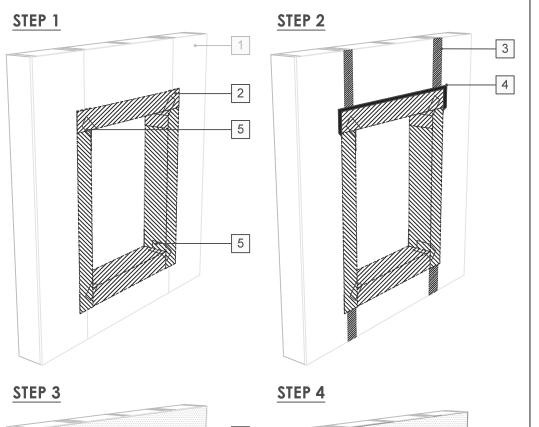
- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



CURTAINWALL SILL DETAIL - NON-MASONRY CLADDING

	DRAWING:	VPL 50RS UV-022
	SCALE:	3'' = 1'
	EFFECTIVE DATE:	2023.04.10
	SUPERCEDES:	NEW



6

LEGEND

- 1. SHEATHING SUBSTRATE
- 2. PERM-A-BARRIER® DETAIL MEMBRANE,
 NPS DETAIL MEMBRANE, ALUMINUM
 FLASHING, OR WALL FLASHING PRIME SUBSTRATE WHERE REQUIRED
 (SEE DRAWING VPL50RS-003 (3D-2)
 FOR MORE INFORMATION)
- 3. JOINT TREATMENT PER DETAIL VPL50RS-009B
- PERM-A-BARRIER[®] S100 SEALANT OR PERM-A-BARRIER[®] LIQUID FLASHING -1-INCH WIDE TROWELED BEAD
- 5. CORNER PATCH
- 6. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 7. WINDOW PER ARCH
- 8. SHEET METAL HEAD FLASHING PER ARCH.
- 9. PERM-A-BARRIER® S100 SEALANT OR PERM-A-BARRIER® LIQUID FLASHING

NOTE

9

8

7

- CONTINUOUS AIR AND WATER SEAL AT PERIMETER OF FENESTRATION, FENESTRATION ATTACHMENT, AND DRAINAGE OF ROUGH OPENING TO BE PER PROJECT SPECIFIC REQUIREMENTS
- SEAL ALL NON-WATER SHEDDING
 EDGES WITH ACCEPTABLE SEALANT

GENERAL NOTES

- Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper
 placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service
 temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



WINDOW FLASHING SEQUENCE - SHEET-APPLIED FLASHING

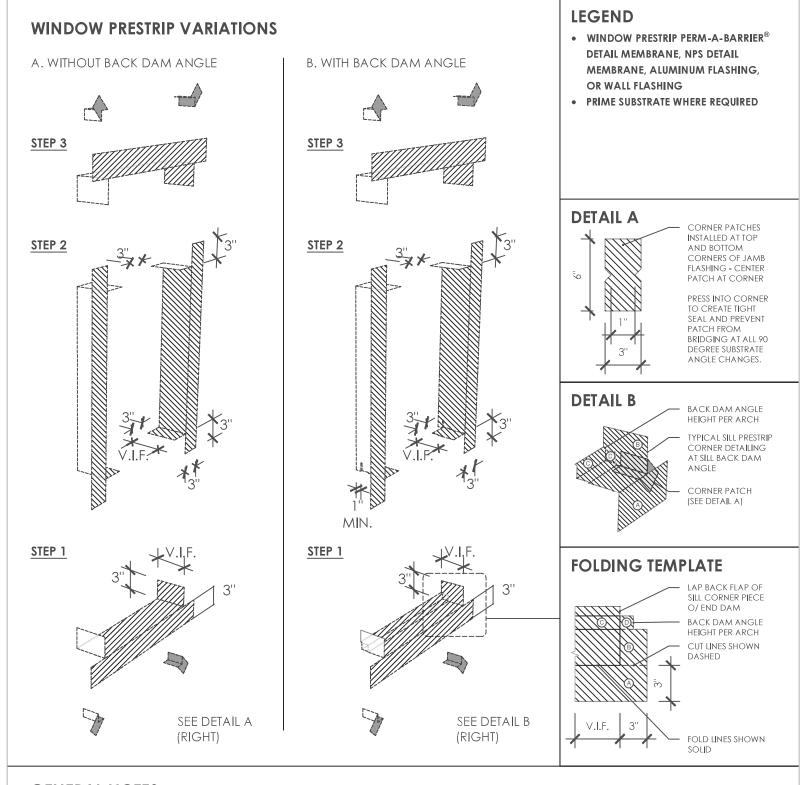
PERM-A-BARRIER® VPL 50RS

 DRAWING:
 VPL50RS-003 (3D-1)

 SCALE:
 3" = 1"

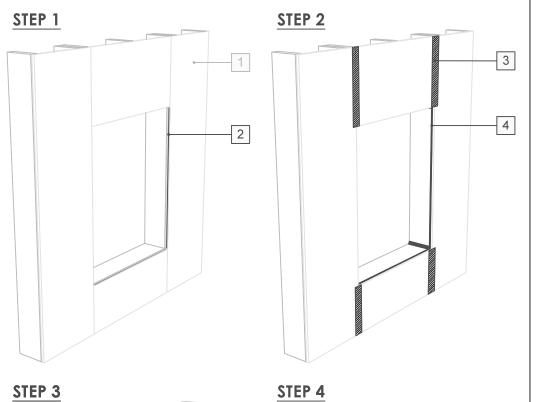
 EFFECTIVE DATE:
 2020.05.21

 SUPERCEDES:
 VPL50-006-A



- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

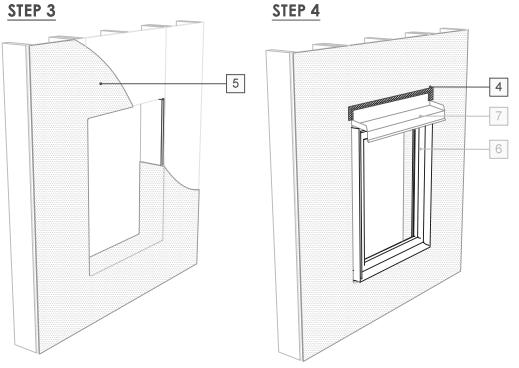




- 1. SHEATHING SUBSTRATE
- 2. PERM-A-BARRIER® PRIMER AT ALL EXPOSED GYPSUM SHEATHING EDGES
- 3. JOINT TREATMENT PER DETAIL VPL50RS-009B
- 4. PERM-A-BARRIER® S100 SEALANT OR
 PERM-A-BARRIER® LIQUID FLASHING
 AT ALL TRANSITIONS BETWEEN
 FRAMING AND SHEATHING
- 5. PERM-A-BARRIER® VPL 50RS UV STABLE MEMBRANE
- 6. WINDOW PER ARCH
- 7. SHEET METAL HEAD FLASHING PER ARCH.

NOTE

 CONTINUOUS AIR AND WATER SEAL AT PERIMETER OF FENESTRATION, FENESTRATION ATTACHMENT, AND DRAINAGE OF ROUGH OPENING TO BE PER PROJECT SPECIFIC REQUIREMENTS



GENERAL NOTES

- 1. Detail not suitable for all climates. Avoiding excessive moisture accumulation in exterior walls is dependent on many factors including proper placement of insulation and water, air, and vapor control layers in the wall. Confirm membranes are suitable for project specific service temperatures. For assistance with exterior wall design, consult with a building science professional.
- 2. Install all GCP products in accordance with GCP Product Data Sheets and GCP recommendations.
- 3. GCP products are indicated in the detail legend in **BOLDFACE** font. Detail components by others are indicated in GRAY FONT. Install components per manufacturer and project specific requirements.

*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



WINDOW FLASHING SEQUENCE -LIQUID-APPLIED FLASHING

PERM-A-BARRIER® VPL 50RS

DRAWING: VPL50RS-003 (3D-3)

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: VPL50-006-C