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PERM-A-BARRIER® VPL Data Sheet

Fluid-applied vapor permeable air barrier membrane



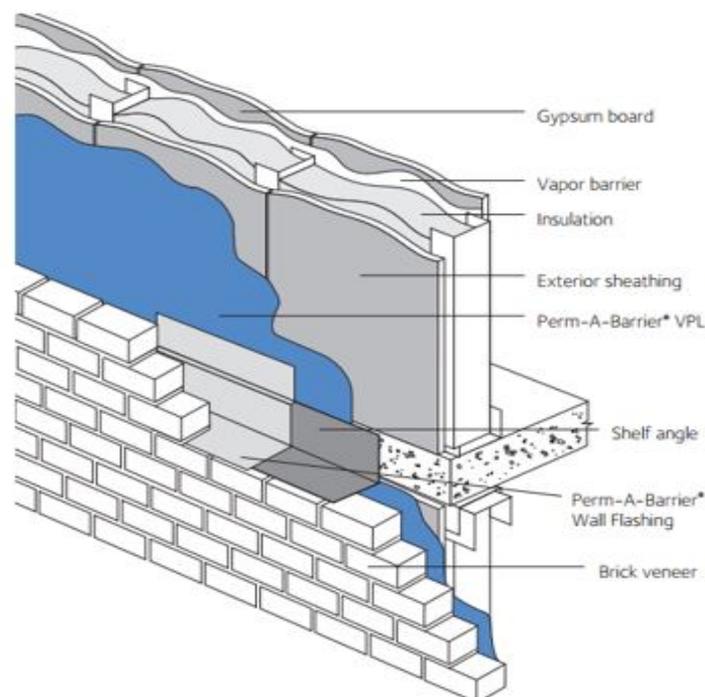
Product Description

PERM-A-BARRIER® VPL is a fluid applied, one component, acrylic membrane that cures to form a resilient, monolithic, fully bonded elastomeric sheet when applied to construction surfaces. For application at temperatures between 20 °F (-7°C) and rising to 60 °F (16°C). Please use PERM-A-BARRIER® VPL LT. (Please a different datasheet)

PERM-A-BARRIER® VPL membrane provides superior protection against the damaging effects of air and liquid water ingress on building structures. The product creates a solid barrier against air infiltration and exfiltration, which minimizes associated energy loss and condensation problems.

PERM-A-BARRIER® VPL membrane is vapor permeable for wall assemblies requiring this “breathable” characteristic. As a vapor permeable membrane, it permits the transfusion of water vapor that may otherwise condense in the wall structure; but is impermeable to liquid water, which allows the material to act as a water drainage plain.

The Volatile Organic Compound (VOC) content of PERM-A-BARRIER® VPL membrane is less than 30 g/L.



Product Advantages

- Fire resistant – meets NFPA 285 as part of various wall assemblies with foam plastic insulation
- Plasticizer, Phthalate and Halogen-free – safe and environmentally-friendly
- Air tight – protects against air passage and associated energy losses. Meets new ASTM E2357 standard
- Vapor permeable – prevents moisture from being trapped in the wall cavity by allowing walls the ability to dry
- Single component – fast and easy application with simple spray equipment
- Fully bonded – transmits wind loads directly to the substrate
- Seamless – continuous membrane integrity with no laps
- Damp surface tolerant – can be applied to damp-to-touch surfaces
- Strong adhesion to common construction substrates such as wood, block, concrete, OSB, gypsum sheathing and metal
- Compatible with PERM-A-BARRIER® Flashing Systems

Principal Applications

Vapor permeable air barrier for new and remedial commercial and residential applications:

- Concrete block walls with brick veneer or pre-formed cladding panels
- Steel or wood stud walls with exterior gypsum sheathing, brick veneer or pre-formed panels, plywood and OSB

System Components

- PERM-A-BARRIER® VPL membrane – for vertical applications
- PERM-A-BARRIER® Universal Flashing & Sealant – one part moisture curing, STPE sealant for sealing penetrations, terminations, brick ties, final terminations & flashing application.
- BITUTHENE® Liquid Membrane – for details and terminations
- PERM-A-BARRIER® Wall Flashing – heavy duty fully adhered membrane for through-wall flashing detailing
- PERM-A-BARRIER® Detail Membrane – flexible, fully-adhered membrane for detail flashing areas
- PERM-A-BARRIER® Aluminum Flashing – flexible, aluminum faced, fully-adhered membrane for detail flashing areas

Installation

Safety

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.

SDSs can be obtained from our web site at gcpat.com or by contacting us toll free at 866-333-3SBM (3726).

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.

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 pre-treated with BITUTHENE® Liquid Membrane or repaired with a lean mortar mix or nonshrinking 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 membrane prior to spraying to full thickness.

PERM-A-BARRIER® VPL membrane may be applied to green (minimum 3 day cure time) concrete or over damp to-touch surfaces. 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 nonshrinking 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 membrane may be applied directly to exterior sheathing panels such as exterior drywall, plywood and oriented strand board (OSB) and glass faced wall boards. 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 manufacturers recommendations. Completely fill the sheathing joint with Universal Flashing & Sealant Sealant and then install a scratch coat (approx. 15-30 mils) of Universal Flashing & Sealant 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. Once the sealant is tack free, the PERM-A-BARRIER® VPL membrane may be applied.

Detailing

Detailing should be completed prior to applying the full coverage of PERM-A-BARRIER® VPL membrane. The field application should completely cover the detail areas to provide a continuous membrane.

For a complete description and instructions on individual details, consult the separate detail sheets found on our web site at gcpat.com.

Transitions to beams, columns, window and door frames, etc. should be made with a strip of PERM-A-BARRIER® Detail Membrane, PERM-A-BARRIER® Aluminum Flashing or PERM-A-BARRIER® Wall Flashing product. Only PERM-A-BARRIER® Wall Flashing membrane can be used for through wall flashing applications or under masonry units. Optimum adhesion will be achieved when the membrane or flashing is lapped onto the cured PERM-A-BARRIER® VPL membrane. As soon as it is cured (approximately 24 hrs after application at 50% R.H, 68 °F), the product is ready to accept self-adhered membranes or flashings.

A minimum 6 in. (150 mm) wide strip of PERM-A-BARRIER® Detail Membrane, PERM-A-BARRIER® Aluminum Flashing or PERM-A-BARRIER® Wall Flashing product should be installed and centered over all outside corners ensuring that all horizontal laps shed water. Installation of the self-adhered flashing at corners may be installed prior to the PERM-A-BARRIER® VPL LT application in accordance with the applicable data sheet and installation instructions or after the PERM-A-BARRIER® VPL LT product has cured. Avoid installing Universal Flashing & Sealant under self-adhered flashing. Best practice would be to install corner flashing prior to detailing exterior sheathing joints with Universal Flashing & Sealant. Any gaps around penetrations should be grouted solid or caulked with BITUTHENE® Liquid Membrane or a polyurethane sealant prior to the PERM-A-BARRIER® VPL membrane application. Refer to GCP standard penetration details.

Membrane Application

PERM-A-BARRIER® VPL product can be installed through a spray application. It may be applied by roller or brush, however spray application is the preferred method. If applying PERM-A-BARRIER® VPL product 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 - In spray applications, PERM-A-BARRIER® VPL membrane may be applied at temperatures as low as 40 °F (4 °C). It is not recommended for use when cold and/ or damp conditions exist for prolonged periods. The product is a water-based material. As with all water-based materials, it is subject to freezing at temperatures below 32 °F (0 °C).

Thickness Control

Application thickness is controlled in vertical applications 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 product are acceptable as long as the minimum thickness is maintained.

Coverage Rates

PERM-A-BARRIER® VPL membrane is typically applied at a minimum thickness of 44 mils wet. The theoretical coverage rate (not including waste) at a thickness of 44 mils is approximately 37 ft²/gal to reach a 25 mil dry thickness.

Coverage may vary depending on application technique and may be reduced over rough and uneven substrates.

Note: Above listed coverage rates are minimums, installing at a greater thickness is acceptable. For more information, please contact your GCP Representative.

Drying

PERM-A-BARRIER® VPL membrane is dry to touch and can be overcoated within 4 hours under normal conditions (50% R.H, 68 °F). The product dries through in 24 hours at normal conditions (50% R.H, 68 °F). Drying and skinning times may vary depending on temperature, humidity and surface conditions.

Application of Insulation and Finishes

PERM-A-BARRIER® VPL membrane is not suitable for permanent exposure. Insulation boards may be installed after the product has fully cured. If the insulation or exterior finish cannot be applied within 6 months of the product application, some form of temporary protection (such as tarpaulins) should be used to protect the product from the effects of sunlight. Installation of insulation boards can be accomplished by using compatible mechanical fasteners or, solvent free insulation adhesive.

Cleaning

Tools and equipment are most effectively cleaned using a damp cloth and removing material as soon as possible to prevent curing on tools and equipment. For short shutdown periods, material can remain in the lines and equipment. Material should not be left in the lines for any period of time if temperatures are expected to drop below 40 °F (4 °C). For long-term storage, thoroughly flush the entire system with water and then purge with PROCOR® Flushing Oil. Good preventative maintenance will lengthen the life of the pumps.

Storage and Handling

PERM-A-BARRIER® VPL membrane should be stored under cover in original sealed containers above 40 °F (4 °C) and below 90 °F (35 °C). The shelf life is 12 months in unopened containers.

Store opened containers with plastic protective liner covering the material.

Limitations

PERM-A-BARRIER® VPL should not be used in areas where it will be permanently exposed to sunlight, weather or traffic. Maximum UV exposure period is 6 months. For indirect or intermittent UV exposure applications, refer to PERM-A-BARRIER® VPL50RS UV Stable.

Do not apply the product in wet weather. It should not be applied if rain or temperatures below 40 °F (4 °C) are expected within 24 hrs. For applications below 40 °F (4 °C), refer to PERM-A-BARRIER® VPL LT.

PERM-A-BARRIER® VPL membrane should be kept from freezing as it is subject to freezing at temperatures below 32 °F (0 °C).

PERM-A-BARRIER® VPL has a maximum in-service temperature of 160 °F (71.1 °C).

Physical Properties

PROPERTY	TYPICAL VALUE	TEST METHOD
Color	Green	
Thickness	44Mils wet film 25Mils dry film	
Solids content by volume	59% (approx.)	
Drying time @ 50% R.H., 68 °F1	4 hours - tack free 24 hours - fully dry	
Water resistance of in-place membrane	Pass	ASTM E331
Air permeance	<0.0001 cfm/ft ² @ 75 Pa	ASTM E2178
Assembly air permeance	Pass	ASTM E2357
Water vapor transmission	20 perms	ASTM E96 - Method B
Pull adhesion to glass-mat faced gypsum sheathing ²	30 psi	ASTM D4541
Pull adhesion to concrete	100 psi	ASTM D4541
Tensile strength	110 psi	ASTM D412 - Die C
Elongation	250%	ASTM D412 - Die C
Nail sealability	Pass	ASTM D1970
Low temperature flexibility	Pass at -20 °F (-29 °C)	ASTM D1970
Wall assembly fire test	Pass as part of various wall assemblies with foam plastic insulation	NFPA 285

ICC-ES AC 212 Acceptance Criteria For Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing

Structural	Pass - No cracking within the field of the panel or at the substrate joints	ASTM E1233 Procedure A
Racking	Pass - No cracking within the field of the panel or at the substrate joints	ASTM E72
Restrained environmental cycling test	Pass - No cracking within the field of the panel or at the substrate joints	ICC-ES AC 212
Water penetration testing	Pass - No water penetration at the sheathing joints at the backside of the panel	ASTM E331
Freeze-thaw	Pass - No sign of deleterious effects after 10 cycles	ASTM E2485 - Method B

Footnotes:

1. Drying and skinning times may vary depending on temperature, humidity and surface conditions.
2. Failure occurs when glass facing pulls away from gypsum core.

Finished and exposed surfaces should be protected from overspray. PERM-A-BARRIER® VPL membrane should not be used in waterproofing applications in hydrostatic condition

PERM-A-BARRIER® VPL membrane is not compatible with petroleum solvents, fuels and oils, materials containing creosote, pentachlorophenol or linseed oil.

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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: 2023-04-28

gcpat.com/solutions/products/perm-a-barrier-air-barrier-system/perm-a-barrier-vpl

PERM-A-BARRIER® VPL Low Temperature Data Sheet

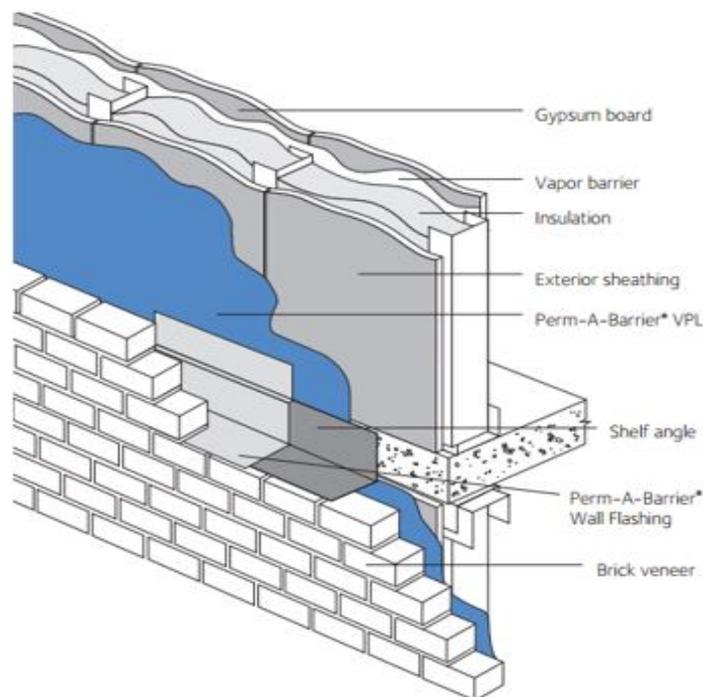
Fluid applied vapor permeable air barrier membrane for low temperature applications

Product Description

PERM-A-BARRIER® VPL Low Temp (LT) is a two-component, fluid-applied, acrylic membrane that cures to form a resilient, monolithic, fully bonded elastomeric sheet when applied to construction surfaces at temperatures between 20 °F (-7 °C) and rising to 60 °F (16 °C).

PERM-A-BARRIER® VPL LT membrane provides superior protection against the damaging effects of air and liquid water ingress on building structures. The product creates a solid barrier against air infiltration and exfiltration, which minimizes associated energy loss and condensation problems.

PERM-A-BARRIER® VPL LT membrane is vapor permeable for wall assemblies requiring this “breathable” characteristic. As a vapor permeable membrane, this product permits the transfusion of water vapor that may otherwise condense in the wall structure; but is impermeable to liquid water, which allows the material to act as a water drainage plane.



Product Advantages

- Fire resistant – meets NFPA 285 as part of various wall assemblies with foam plastic insulation
- Plasticizer, Phthalate and Halogen-free – safe and environmentally-friendly
- Air tight – protects against air passage and associated energy losses. Meets new ASTM E2357 standard as required by IECC 2012
- Vapor permeable – prevents moisture from being trapped in the wall cavity by allowing walls the ability to dry
- Low Temperature – can be applied at temperatures as low as 20 °F (-7 °C)
- Fully bonded – transmits wind loads directly to the substrate
- Seamless – continuous membrane integrity with no laps
- Damp surface tolerant – can be applied to damp-to-touch surfaces
- Strong adhesion to common construction substrates such as wood, block, concrete, OSB, gypsum sheathing and metal
- Compatible with PERM-A-BARRIER® Flashing Systems

Principal Applications

Vapor permeable air barrier for new and remedial commercial and residential applications where application temperatures are between 20 °F (-7 °C) and 60 °F (16 °C):

- Concrete block walls with brick veneer or pre-formed cladding panels
- Steel or wood stud walls with exterior gypsum sheathing, brick veneer or pre-formed panels, plywood and OSB

System Components

- PERM-A-BARRIER® VPL LT Part A – Same material as PERM-A-BARRIER® VPL, acrylic-based air barrier material for vertical applications
- PERM-A-BARRIER® VPL LT Part B – flammable, solvent component that is mixed with PERM-A-BARRIER® VPL LT Part A for low temperature applications
- PERM-A-BARRIER® Universal Flashing & Sealant – one part moisture curing, STPE sealant for sealing penetrations, terminations, brick ties, final terminations & flashing application.
- BITUTHENE® Liquid Membrane – for details and terminations
- PERM-A-BARRIER® Wall Flashing – heavy duty fully-adhered membrane for through-wall flashing detailing
- PERM-A-BARRIER® Detail Membrane – flexible, fully-adhered membrane for detail flashing areas
- PERM-A-BARRIER® Aluminum Flashing – flexible, aluminum faced, fully-adhered membrane for detail flashing areas

Installation

Safety

PERM-A-BARRIER® VPL LT membrane is a two-component product consisting of PERM-A-BARRIER® VPL LT Part A and PERM-A-BARRIER® VPL LT Part B, which is a flammable, solvent-based material. The Volatile Organic Compound (VOC) content of the mixed product as applied, is equal to 71.1 g/L.

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.

SDSs can be obtained from our web site at gcpat.com or by contacting us toll free at 866-333-3SBM (3726).

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.

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 pre-treated with BITUTHENE® Liquid Membrane or repaired with a lean mortar mix or nonshrinking 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 membrane prior to spraying to full thickness.

PERM-A-BARRIER® VPL membrane may be applied to green (minimum 3 day cure time) concrete or over damp to-touch surfaces. 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 nonshrinking 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 LT membrane may be applied directly to exterior sheathing panels such as exterior drywall, plywood and oriented strand board (OSB) and glass faced wall boards. 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 manufacturers recommendations. Completely fill the sheathing joint with S100 Sealant. Then install a scratch coat (approx. 15-30 mils) of the 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. Once the sealant is tack free, the PERM-A-BARRIER® VPL LT membrane may be applied.

Detailing

Detailing should be completed prior to applying the full coverage of PERM-A-BARRIER® VPL LT membrane. The field application should completely cover the detail areas to provide a continuous membrane.

For a complete description and instructions on individual details, consult the separate detail sheets found on our web site at gcpat.com

Transitions to beams, columns, window and door frames, etc. should be made with a strip of PERM-A-BARRIER® Detail Membrane, PERM-A-BARRIER® Aluminum Flashing or PERM-A-BARRIER® Wall Flashing product. Only PERM-A-BARRIER® Wall Flashing membrane can be used for through wall flashing applications or under masonry units. Optimum adhesion will be achieved when the membrane or flashing is lapped onto the cured PERM-A-BARRIER® VPL LT product. As soon as the product is cured (approximately 24 hrs after application at 50% R.H, 32 °F), it is ready to accept self-adhered membranes or flashings.

A minimum 6 in. (150 mm) wide strip of PERM-A-BARRIER® Detail Membrane, PERM-A-BARRIER® Aluminum Flashing or PERM-A-BARRIER® Wall Flashing product should be installed and centered over all outside corners ensuring that all horizontal laps shed water.

Installation of the self-adhered flashing at corners may be installed prior to the PERM-A-BARRIER® VPL LT application in accordance with the applicable data sheet and installation instructions or after the PERM-A-BARRIER® VPL LT product has cured. Avoid installing S100 Sealant under self-adhered flashing. Best practice would be to install corner flashing prior to detailing exterior sheathing joints with S100 Sealant.

Any gaps around penetrations should be grouted solid or caulked with BITUTHENE® Liquid Membrane or a polyurethane sealant prior to the PERM-A-BARRIER® VPL LT application. Refer to GCP standard penetration detail for PERM-A-BARRIER® VPL.

Membrane Application

PERM-A-BARRIER® VPL LT Part A (4 gallon) and PERM-A-BARRIER® VPL LT Part B (0.5 gallon) products must be mixed together prior to product application. It is recommended that the two components be mixed thoroughly for 5–10 minutes to ensure proper dispersion. It is recommended that mixing equipment be intrinsically safe.

PERM-A-BARRIER® VPL LT product can be installed through a spray application. It is recommended that pumping equipment be intrinsically safe. It may be applied by roller, however spray application is the preferred method. If applying the product by roller, multiple material passes may be necessary to ensure that the required wet thickness is achieved.

Refer to equipment manufacturer's instructions for handling flammable and combustible materials. Follow OSHA bonding and grounding procedures for flammable and combustible materials.

Contact GCP for further details of local applicators, application techniques and spray equipment.

Application Temperature – PERM-A-BARRIER® VPL LT membrane has the ability to be sprayed or rolled at temperatures as low as 20 °F (-7 °C) provided there is no frost or condensation on the substrate. The temperature must remain above 20 °F (-7 °C) until the product completely dries.

Thickness Control

Application thickness is controlled in vertical applications 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 LT membrane are acceptable as long as the minimum thickness is maintained.

Drying

PERM-A-BARRIER® VPL LT membrane is dry to touch and can be overcoated within 4 hours under normal conditions (50% R.H, 32 °F). The product dries through in 24 hours at normal conditions (50% R.H, 32 °F). Drying and skinning times may vary depending on temperature, humidity and surface conditions.

Coverage Rates

PERM-A-BARRIER® VPL LT membrane is typically applied at a minimum thickness of 44 mils wet. The theoretical coverage rate (not including waste) at a thickness of 44 mils is approximately 37 ft²/gal to reach a 25 mil dry thickness.

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 68 mils wet, adjust coverage rate accordingly.

Application of Insulation and Finishes

PERM-A-BARRIER® VPL LT product is not suitable for permanent exposure. Insulation boards may be installed after it has fully cured. If the insulation or exterior finish cannot be applied within 6 months of the PERM-A-BARRIER® VPL LT application, some form of temporary protection (such as tarpaulins) should be used to protect the product from the effects of sunlight. Installation of insulation boards can be accomplished by using compatible mechanical fasteners or, solvent free insulation adhesive.

Cleaning

Tools and equipment are most effectively cleaned with using a dish soap mix of 1 oz/per gallon water.(i.e. Dawn®Ultra-2x Active Suds). This method works before material is cured. Mineral Spirits can be used on cured material on tools to remove. Flush system before its used to remove the light oil which was left from factory testing. PERM-A-BARRIER® NPL is a water base product, so soapy water mix to prime pump is best (1-2 gallons). For short shutdown periods, material can remain in equipment and delivery lines. Material should not be left in system for any period of time if temperatures are expected to drop below 40 °F (4 °C). Normal flushing of system use soapy mix until clear/clean mix is observed (stored at 40 °F or above).

** Long-term storage, after system has been cleaned with soapy water mix several options can be used.

Procor Flushing Oil, Graco®- Pump Armor™, Titan™-LS-10 Liquid Shield™ Plus or Mineral Spirits can be pumped through system. Be sure to always pump soapy water mix prior to priming system with PERM-A-BARRIER® VPL LT.

Storage and Handling

PERM-A-BARRIER® VPL LT Part A product should be stored under cover in original sealed containers above 40 °F (4 °C) and below 90 °F (35 °C). The shelf life is 9 months in unopened containers.

PERM-A-BARRIER® VPL LT Part B product should be stored under cover in original sealed containers above 20 °F (-7 °C) and below 70 °F (21 °C). The shelf life is 9 months in unopened containers.

PERM-A-BARRIER® VPL LT (mixed, final product) should be stored under cover in containers above 20 °F (-7 °C) and below 70 °F (21 °C). Once PERM-A-BARRIER® VPL LT Part A and PERM-A-BARRIER® VPL LT Part B have been mixed together, the shelf life is 4 weeks and the unused mixed product must be properly disposed of after this time period.

PERM-A-BARRIER® VPL LT is always sold as a system (Part A + Part B together) as 6 gal kit. Part B alone is not available to sell.

Store opened containers with plastic protective liner covering the material.

Limitations

PERM-A-BARRIER® VPL LT membrane should not be used in areas where it will be permanently exposed to sunlight, weather or traffic. Maximum UV exposure period is 6 months. For indirect or intermittent UV exposure applications, refer to PERM-A-BARRIER® VPL50RS UV Stable.

Do not apply PERM-A-BARRIER® VPL LT membrane in wet weather. The product should not be applied if rain or snow is expected within 24 hrs.

PERM-A-BARRIER® VPL LT Part A product should be kept from freezing as it is subject to freezing at temperatures below 32 °F (0 °C).

Finished and exposed surfaces should be protected from overspray.

PERM-A-BARRIER® VPL LT product should be installed over S100 Sealant at exterior sheathing panel joints only.

PERM-A-BARRIER® VPL LT membrane should not be used in waterproofing applications in hydrostatic condition.

PERM-A-BARRIER® VPL LT product is not compatible with petroleum solvents, fuels and oils, materials containing creosote, pentachlorophenol or linseed oil. It has a maximum in-service temperature of 160 °F (71.1 °C). The shelf life is 9 months in unopened containers.

Physical Properties

PROPERTY	TYPICAL VALUE	TEST METHOD
Color	Green	
Thickness	44Mils Wet Film 25Mils Dry Film	
Solids content by volume	59% (approx.)	
Drying time @ 50% R.H., 68°F1	4 hours - tack free 24 hours - fully dry	
Water resistance of in-place membrane	Pass	ASTM E331

Air permeance	<0.0001 cfm/ft ² @ 75 Pa	ASTM E2178
Assembly air permeance	Pass	ASTM E2357
Water vapor transmission	20 perms	ASTM E96 - Method B
Pull adhesion to glass-mat faced gypsum sheathing ²	30 psi	ASTM D4541
Pull adhesion to concrete	100 psi	ASTM D4541
Elongation	250%	ASTM D412 - Die C
Nail sealability	Pass	ASTM D1970
Low temperature flexibility	Pass at -20 °F (-29 °C)	ASTM D1970
Wall assembly fire test	Pass as part of various wall assemblies with foam plastic insulation ³	NFPA 285

Footnotes:

1. Drying and skinning times may vary depending on temperature, humidity and surface conditions.
2. Failure occurs when glass facing pulls away from gypsum core Lab value, field results may vary.
3. Specific wall assemblies are available at gcpat.com.

gcpat.com | North America Customer Service: 1-866-333-3SBM (3726).

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

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Last Updated: 2022-12-09

gcpat.com/solutions/products/perm-a-barrier-air-barrier-system/perm-a-barrier-vpl-low-temperature

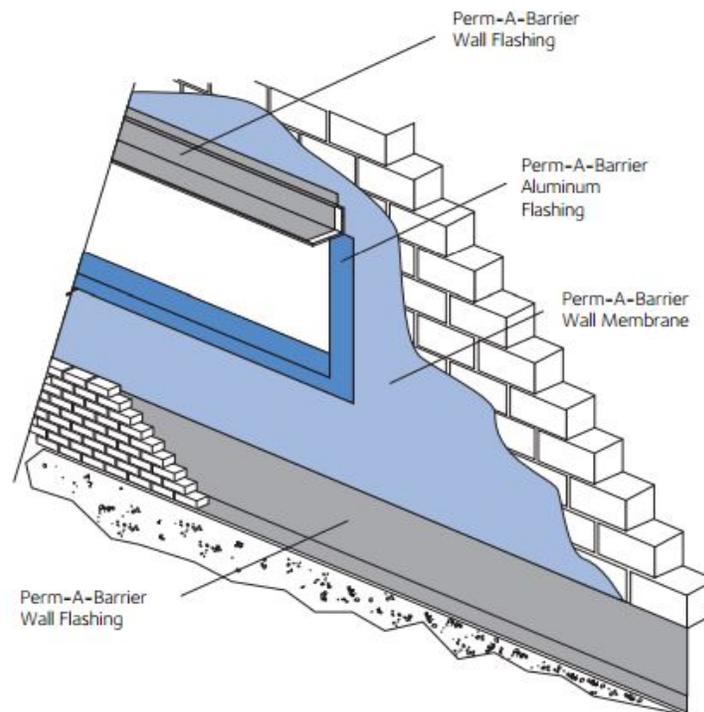
PERM-A-BARRIER® Aluminum Flashing Data Sheet

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

Product Description

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

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



Product Advantages

- Fully bonded - transmits wind loads directly to the substrate
- Waterproof and impermeable to moisture - impermeable to the passage of liquid water and water vapor
- Aluminum faced film - provides extended UV exposure, improved sealant adhesion to film, dimensional stability, high tear strength, puncture and impact resistance
- Cold applied - no flame hazard; self-adhesive overlaps ensure continuity
- Flexible - accommodates minor settlement and shrinkage movement

- **Controlled thickness** – factory made sheet ensures constant, non-variable site application
- **Aggressive, conformable adhesive** – allows self-sealing around mechanical fasteners
- **Wide application window** – PERM-A-BARRIER® Aluminum Flashing surface and ambient temperatures at 25 °F (-4 °C) and above

System Components

- **PERM-A-BARRIER® Aluminum Flashing** – Aluminum faced fully adhered flashing for protecting and sealing critical detail areas
- **PERM-A-BARRIER® WB Primer** – high tack, water-based primer for use with PERM-A-BARRIER® Aluminum 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. SDSs can be obtained from our web site at gcpat.com or by contacting us toll free at 866-333-3SBM (3726).

Surface Preparation

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

If the substrate is damp, allow to dry or use BITUTHENE® Primer B2 LVC to prepare the area to receive the membrane. DO NOT apply any primer to PERM-A-BARRIER® Aluminum Flashing.

Temperature

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

Application

Priming - PERM-A-BARRIER® WB Primer is a water-based primer which imparts an aggressive, high tack finish on the treated substrate. They are packaged ready to use and are specifically designed to facilitate tenacious adhesion of PERM-A-BARRIER® Aluminum Flashing to various substrates 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.

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

When applying Aluminum Flashing to PERM-A-BARRIER® Wall Membranes and Wall Flashing - Apply a bead of Universal Flashing & Sealant, BITUTHENE®Mastic or BITUTHENE®Liquid Membrane along all top edges, cuts, penetrations and as shown in GCP detail drawings, and trowel into place.

When applying Aluminum Flashing to PERM-A-BARRIER® Liquid, PERM-A-BARRIER® VP, PERM-A-BARRIER® VP Low Temp or PERM-A-BARRIER® VPO - Apply a bead of Universal Flashing & Sealant or BITUTHENE®Liquid Membrane along all top edges, cuts, penetrations and as shown in 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.

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.

Membrane Protection

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

Storage and Handling Information

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

Limitations

PERM-A-BARRIER® Aluminum Flashing must not be applied in areas where it will be exposed to direct sunlight permanently, and must be covered within 1 year. Refer to Technical Letter 19, *Exposure Guidelines for PERM-A-BARRIER® Self-Adhered Membranes*.

PERM-A-BARRIER® Aluminum 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.

Physical Properties

Available in 4", 6", 9", 12" & 18" width

PROPERTY	TYPICAL VALUE	TEST METHOD
Thickness	0.040 in. (1.0 mm)	ASTM D3767 method A
Minimum tensile strength, membranes	600 psi	ASTM D412 die C modified
Minimum tensile strength, film	4000 psi	ASTM D412 die C modified
Minimum elongation, to failure of rubberized asphalt	200%	ASTM D412 die C modified
Pliability, at 180° bend over 1 in. (25 mm) mandrel	Pass at -15 °F (-26 °C)	ASTM D1970
Crack cycling, 1/8in. (3.2 mm) at -25 °F (-32 °C)	Unaffected	ASTM C836
Minimum puncture resistance, membrane	80 lbs (355 N)	ASTM E154
Water absorption	0.1%	ASTM D570

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Last Updated: 2022-08-22

gcpat.com/solutions/products/perm-a-barrier-air-barrier-system/perm-a-barrier-aluminum-flashing

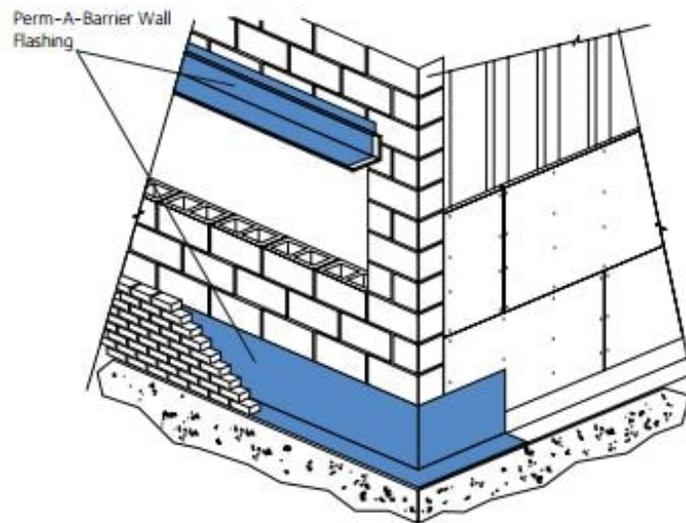
PERM-A-BARRIER® Wall Flashing Data Sheet

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
- **RIPCORDER[®] 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. RIPCORDER®, 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 tube	12 tubes	approx. 30 linear ft x 1/4 in. bead	32 lbs/carton	72 cartons (864 tubes) per pallet
PERM-A-BARRIER® Universal Flashing & Sealant Sealant—29 oz. Cartridge	1 cartridge	approx. 30 linear ft x 1/4 in. bead	29 oz. cartridge	10 cartridges/ carton 42 cartons/ pallet
BITUTHENE® Liquid Membrane—1.5 gal pail	1 pail	approx. 200 Linear ft/gal @ 1" wide x 90 mils.	16 lbs/pail	100 pails per pallet
BITUTHENE® Liquid Membrane—4 gal pail	1 pail	approx. 200 Linear ft/gal @ 1" wide x 90 mils.	44 lbs/pai	24 pails per pallet
PERM-A-BARRIER® Primer Plus—5 gal pail	1 pail	450–500 ft ² /gal (11–12 m ² /L)	43 lbs/pail	36 pails per pallet
PERM-A-BARRIER® WB Primer—5 gal pail	1 pail	250–350 ft ² /gal (6–8 m ² /L)	45 lbs/pail	32 pails per pallet

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 temperature	60 lbs/ft (875 N/m) width	ASTM D903
Puncture resistance, membrane	40 lbs (178 N) minimum MD 80 lbs (356 N) minimum MD	ASTM D781 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/m ² sPa) 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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Last Updated: 2022-12-08

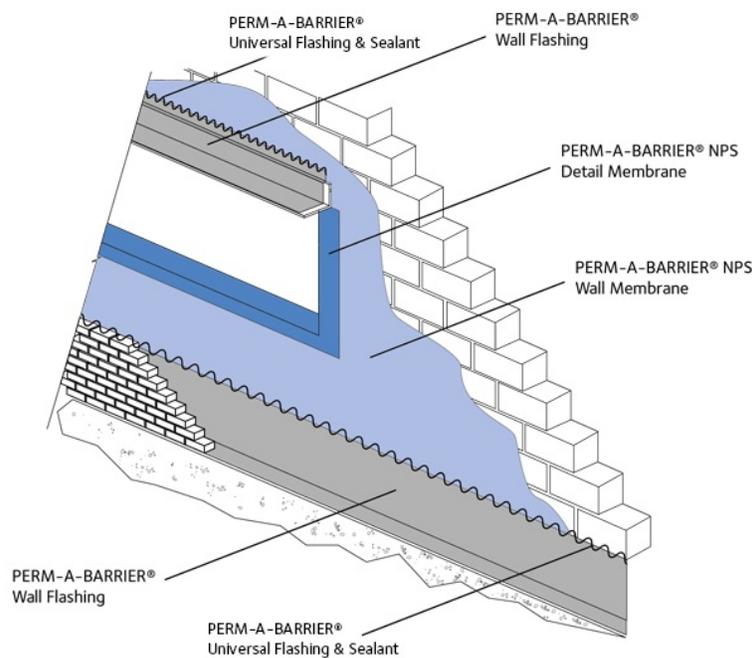
gcpat.com/solutions/products/perm-a-barrier-air-barrier-system/perm-a-barrier-wall-flashing

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 pallet
- 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 temperature	3.5 lbs./in.	ASTM D1876
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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Last Updated: 2022-12-09

gcpat.com/solutions/products/perm-a-barrier-nps-air-barrier/perm-a-barrier-nps-detail-membrane

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 g/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 ft²/gal (23–28 m²/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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Last Updated: 2022-09-20

gcpat.com/solutions/products/perm-a-barrier-air-barrier-system/perm-a-barrier-adhesive-primer

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 ft² /gal (6.0–8.0 m² /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 guidelines 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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Last Updated: 2022-12-08

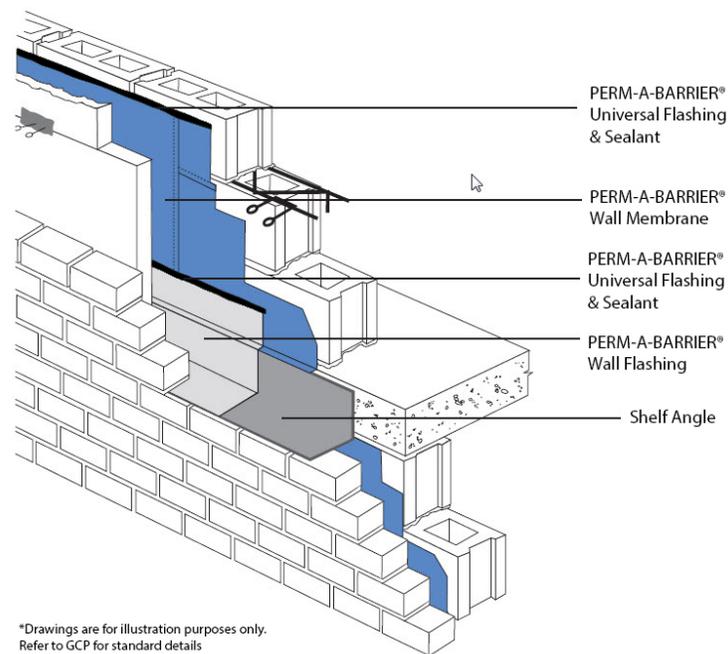
gcpat.com/solutions/products/perm-a-barrier-air-barrier-system/perm-a-barrier-wb-primer

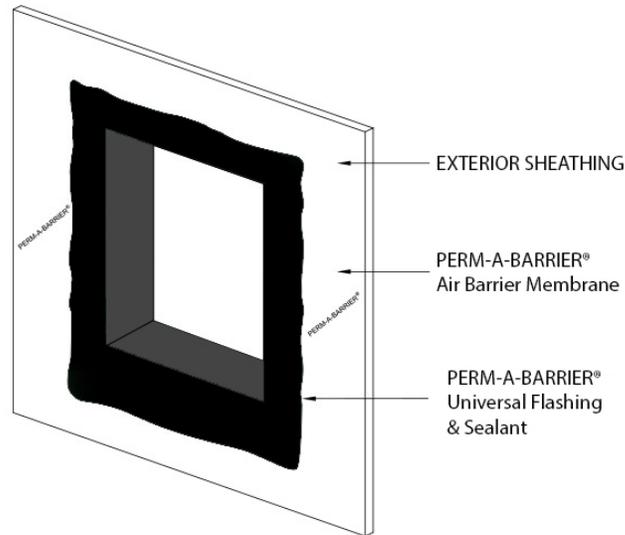
PERM-A-BARRIER® Universal Flashing & Sealant Data Sheet

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

- Asphalt Compatible
- 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 gcpat.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).

When 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).
- 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
Water Penetration Around Nails	Pass	ASTM D 1970 section 7.9/AAMA 714-19
Crack Bridging Ability	Category I, Pass,	ASTM C 1305/AAMA 714 section 5.6

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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Last Updated: 2023-05-15

gcpat.com/solutions/products/perm-a-barrier-air-barrier-system/perm-a-barrier-Universal-Flashing-Sealant

Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

1 Identification

Product identifier

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

SDS ID Number: 2253

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

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

Suspected of causing cancer.

May cause respiratory irritation.

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

Hazard pictograms



GHS07



GHS08

Warning

Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

Suspected of causing cancer.

May cause respiratory irritation.

Precautionary statements

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

Wear eye protection / face protection.

(Cont. on page 2)

USGHS

Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

(Cont. from page 1)

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

IF ON SKIN: Wash with plenty of water.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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

IF exposed or concerned: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

NFPA ratings (scale 0 - 4)



Health = 2
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)



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:

	Proprietary Polymer - NJTS-50338	20-25%
13463-67-7	Titanium dioxide	1.0-3.0%
	Proprietary Additive - NJTS-50573	1.0-3.0%
108-05-4	vinyl acetate	0.1-0.3%

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.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

(Cont. on page 3)

USGHS

Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

(Cont. from page 2)

Information for doctor:**Most important symptoms and effects, both acute and delayed**

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****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:

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**

Avoid contact with skin.

Avoid contact with eyes.

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:****13463-67-7 Titanium dioxide**

PEL (USA)	Long-term value: 15* mg/m ³ *total dust
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(Cont. on page 4)

USGHS

Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

(Cont. from page 3)

REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 10 mg/m ³ withdrawn from NIC

108-05-4 vinyl acetate

REL (USA)	Ceiling limit value: 15* mg/m ³ , 4* ppm *15-min
TLV (USA)	Short-term value: 53 mg/m ³ , 15 ppm Long-term value: 35 mg/m ³ , 10 ppm

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.

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:	Liquid
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value (~) at 20 °C (68 °F): 4

Change in condition

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

Flammability (solid, gaseous): Not applicable.

Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

(Cont. on page 5)

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Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

(Cont. from page 4)

VOC Content (max):	Not determined.
Vapor pressure:	Not determined.
Density: (~) at 20 °C (68 °F)	1.4 g/cm ³ (11.683 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Molecular weight	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* **11 Toxicological information****Information on toxicological effects****Acute toxicity:****LD/LC50 values relevant for classification:****13463-67-7 Titanium dioxide**

Oral LD50 > 5000 mg/kg (rat)

108-05-4 vinyl acetate

Dermal LD50 2920 mg/kg (rat)

LD50 2335 mg/kg (rabbit)

2634-33-5 1,2-benzisothiazol-3(2H)-one

Oral LD50 532 mg/kg (rat)

Dermal LD50 >5000 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:**

May cause respiratory irritation.

Harmful if swallowed.

(Cont. on page 6)

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Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

(Cont. from page 5)

Additional toxicological information:

Suspected of causing cancer.

13463-67-7 Titanium dioxideInhalation | NOAEC | 10 mg/m³ (rat)**Carcinogenic categories****IARC (International Agency for Research on Cancer) Human Carcinogenicity:
Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable**

13463-67-7 | Titanium dioxide

2B

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:****2634-33-5 1,2-benzisothiazol-3(2H)-one**

EC50, 48h | 0.067 mg/l (algae)

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:** 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.

Uncleaned packagings:**Recommendation:** Disposal must be made according to official regulations.USGHS
(Cont. on page 7)

Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

(Cont. from page 6)

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**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
Health Hazard - Acute toxicity (any route of exposure)
Health Hazard - Skin Corrosion or Irritation
Health Hazard - Serious eye damage or eye irritation
Health Hazard - Specific target organ toxicity (single or repeated exposure)

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:

21645-51-2	Aluminium Trihydrate
1302-78-9	Sodium bentonite
9004-62-0	Hydroxyethylcellulose
7732-18-5	Water

California Proposition 65**Chemicals known to cause cancer:**

Titanium dioxide

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 8)

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Safety Data Sheet

Printing date 02/06/2017

Version Number 1.0

Reviewed on 02/06/2017

Trade name: *Perm-A-Barrier VPL & Perm-A-Barrier VPL LT Part A*

(Cont. from page 7)

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**

Titanium dioxide

A4

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

13463-67-7 | Titanium dioxide

Volatile Organic Compounds (VOC) reported per the Emission Standards. <30g/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 02/06/2017 / -**The first date of preparation** 07/27/2016**Number of revision times and the latest revision date** 1.0 / 02/06/2017

USGHS

Safety Data Sheet

Printing date 12/21/2016

Version Number 1.0

Reviewed on 12/21/2016

1 Identification

Product identifier

Trade name: *Perm-A-Barrier Aluminum Flashing*

SDS ID Number: 2763

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)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 1
Flammability = 0
Reactivity = 0

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

Results of PBT and vPvB assessment

PBT: Not applicable.

Safety Data Sheet

Printing date 12/21/2016

Version Number 1.0

Reviewed on 12/21/2016

Trade name: *Perm-A-Barrier Aluminum Flashing*

(Cont. from page 1)

vPvB: Not applicable.

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)

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Safety Data Sheet

Printing date 12/21/2016

Version Number 1.0

Reviewed on 12/21/2016

Trade name: *Perm-A-Barrier Aluminum Flashing*

(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.

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(Cont. on page 4)

Safety Data Sheet

Printing date 12/21/2016

Version Number 1.0

Reviewed on 12/21/2016

Trade name: *Perm-A-Barrier Aluminum Flashing*

(Cont. from page 3)

* **9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Solid
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value (~): Not applicable.

Change in condition

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

Flammability (solid, gaseous): Product is not flammable.

Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.
VOC Content (max):	Not determined.

Vapor pressure:	Not applicable.
Density: (~)	1,1 LBS/CF
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.

Solubility in / Miscibility with Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.
Molecular weight	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.

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Safety Data Sheet

Printing date 12/21/2016

Version Number 1.0

Reviewed on 12/21/2016

Trade name: *Perm-A-Barrier Aluminum 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)

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Safety Data Sheet

Printing date 12/21/2016

Version Number 1.0

Reviewed on 12/21/2016

Trade name: *Perm-A-Barrier Aluminum 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: 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):**

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)

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Safety Data Sheet

Printing date 12/21/2016

Version Number 1.0

Reviewed on 12/21/2016

Trade name: *Perm-A-Barrier Aluminum 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 12/21/2016 / -**The first date of preparation** 12/21/2016**Number of revision times and the latest revision date** 1.0 / 12/21/2016

USGHS

Safety Data Sheet

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)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 1
Flammability = 0
Reactivity = 0

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

Results of PBT and vPvB assessment

PBT: Not applicable.

Trade name: *Perm-A-Barrier Wall Flashing*

(Cont. from page 1)

vPvB: Not applicable.

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)

USGHS

Trade name: *Perm-A-Barrier Wall Flashing*

(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.

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(Cont. on page 4)

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:	Solid
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value (~): Not applicable.

Change in condition

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

Flammability (solid, gaseous): Product is not flammable.

Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.
VOC Content (max):	Not determined.

Vapor pressure:	Not applicable.
Density: (~)	1,1 LBS/CF
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.

Solubility in / Miscibility with Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.
Molecular weight	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.

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)

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Safety Data Sheet

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: 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):**

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.

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Safety Data Sheet

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

USGHS

Safety Data Sheet

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)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 1
Flammability = 0
Reactivity = 0

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

Results of PBT and vPvB assessment

PBT: Not applicable.

Trade name: *Perm A Barrier NPS Detail Membrane*

(Cont. from page 1)

vPvB: Not applicable.

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.

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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.

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(Cont. on page 4)

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Reviewed on 05/30/2018

Trade name: *Perm A Barrier NPS Detail Membrane*

(Cont. from page 3)

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Solid
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value (~): Not applicable.

Change in condition

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

Flammability (solid, gaseous): Product is not flammable.

Ignition temperature: Undetermined.

Decomposition temperature: Not determined.

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.
VOC Content (max):	Not determined.

Vapor pressure: Not applicable.

Density: (~) 1.1 LBS/CF

Relative density: Not determined.

Vapor density: Not applicable.

Evaporation rate: Not applicable.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not applicable.

Kinematic: Not applicable.

Molecular weight: 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.

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(Cont. on page 5)

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.

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Safety Data Sheet

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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: 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):**

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.

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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

USGHS

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 GHS07 GHS08

Danger

Hazard statements

Highly flammable liquid and vapor.

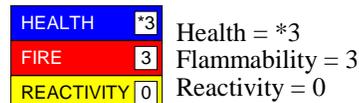
Trade name: Perm-A-Barrier Adhesive Primer

(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)****HMIS-ratings (scale 0 - 4)****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)

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 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:****79-20-9 methyl acetate**

PEL (USA)	Long-term value: 610 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 760 mg/m ³ , 250 ppm
	Long-term value: 610 mg/m ³ , 200 ppm
TLV (USA)	Short-term value: 757 mg/m ³ , 250 ppm
	Long-term value: 606 mg/m ³ , 200 ppm

110-54-3 n-Hexane

PEL (USA)	Long-term value: 1800 mg/m ³ , 500 ppm
REL (USA)	Long-term value: 180 mg/m ³ , 50 ppm

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Reviewed on 03/28/2018

Trade name: *Perm-A-Barrier Adhesive Primer*

(Cont. from page 4)

TLV (USA)	Long-term value: 176 mg/m ³ , 50 ppm Skin; BEI
110-82-7 cyclohexane	
PEL (USA)	Long-term value: 1050 mg/m ³ , 300 ppm
REL (USA)	Long-term value: 1050 mg/m ³ , 300 ppm
TLV (USA)	Long-term value: 344 mg/m ³ , 100 ppm
142-82-5 Heptane	
PEL (USA)	Long-term value: 2000 mg/m ³ , 500 ppm
REL (USA)	Long-term value: 350 mg/m ³ , 85 ppm Ceiling limit value: 1800* mg/m ³ , 440* ppm *15-min
TLV (USA)	Short-term value: 2050 mg/m ³ , 500 ppm Long-term value: 1640 mg/m ³ , 400 ppm
Ingredients with biological limit values:	
110-54-3 n-Hexane	
BEI (USA)	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:	Liquid
Color:	Green
Odor:	Characteristic
Odor threshold:	Not determined.

(Cont. on page 6)

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Safety Data Sheet

Printing date 03/28/2018

Version Number 1.0

Reviewed on 03/28/2018

Trade name: *Perm-A-Barrier Adhesive Primer*

(Cont. from page 5)

pH-value (~):	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	56 °C (132.8 °F)
Flash point:	-23 °C (-9.4 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	215 °C (419 °F)
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	In use, may form flammable/explosive vapor-air mixture.
Explosion limits:	
Lower:	1.2 Vol % Not applicable.
Upper:	16 Vol % Not applicable.
VOC Content (max):	Not applicable.
Vapor pressure:	Not determined.
Density: (~) at 20 °C (68 °F)	0.9 g/cm ³ (7.5 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Molecular weight	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)

USGHS

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)

Safety Data Sheet

Printing date 03/28/2018

Version Number 1.0

Reviewed on 03/28/2018

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 II

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)

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Safety Data Sheet

Printing date 03/28/2018

Version Number 1.0

Reviewed on 03/28/2018

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)** Code: 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)

USGHS

Safety Data Sheet

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

USGHS

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



GHS08

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)



Health = 2

Fire = 1

Reactivity = 0

Safety Data Sheet

Printing date 08/15/2017

Version Number 1.1

Reviewed on 08/15/2017

Trade name: **PERM-A-BARRIER WB Primer**

(Cont. from page 1)

HMIS-ratings (scale 0 - 4)

HEALTH	2	Health = *2
FIRE	1	Flammability = 1
REACTIVITY	0	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%
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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)
USGHS

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/m ³ , 4* ppm *15-min
TLV (USA)	Short-term value: 53 mg/m ³ , 15 ppm Long-term value: 35 mg/m ³ , 10 ppm

(Cont. on page 4)

USGHS

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:	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:	Not applicable.

(Cont. on page 5)

USGHS

Safety Data Sheet

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:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
VOC Content (max):	Not determined.
Vapor pressure:	Not determined.
Density: (~)	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Molecular weight	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)
USGHS

Safety Data Sheet

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)

USGHS

Safety Data Sheet

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
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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
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7732-18-5	Water
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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)

USGHS

Safety Data Sheet

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

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® 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 USAGCP 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

Safety Data Sheet

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 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

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 with limit values that require monitoring at the workplace:

1317-65-3 Limestone

TWA (USA)	Short-term value: 10 mg/m ³ , mg/m ³ ppm Long-term value: 10 mg/m ³ , mg/m ³ ppm (Particulate matter no asbestos)
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471-34-1 Calcium carbonate

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction

(Cont. on page 4)

USGHS

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

(Cont. from page 3)

TLV (USA)	TLV withdrawn
2768-02-7 Trimethoxyvinylsilane	
EV (Canada)	Short-term value: 60 mg/m ³ , 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.

9 Physical and chemical properties

Information on basic physical 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:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	>140 °C (>284 °F)

Flammability (solid, gaseous): Not determined.

Ignition temperature: Undetermined.

Decomposition temperature: Not determined.

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

(Cont. on page 5)

USGHS

Safety Data Sheet

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 4)

Vapor pressure:	Not applicable.
Density: (~)	Not determined.
Vapor density	Not determined.

Solubility in / Miscibility with Water:	Insoluble.
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Partition coefficient (n-octanol/water):	Not determined.
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Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
Molecular weight	Not determined.

Other information	No further relevant information available.
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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**

IARC (International Agency for Research on Cancer) Human Carcinogenicity:
Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

1333-86-4	Carbon black	2B
14808-60-7	Quartz (SiO ₂)	1

NTP (National Toxicology Program)

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

14808-60-7	Quartz (SiO ₂)	K
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OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

USGHS
(Cont. on page 6)

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 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.

UN "Model Regulation": Not applicable.

USGHS
(Cont. on page 7)

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 (SiO ₂)

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 (SiO ₂)

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

PERM-A-BARRIER® VPL Membrane

Five Year Material Warranty

WARRANTY NO. _____

NAME OF BUILDING _____

LOCATION OF BUILDING _____

NAME OF OWNER _____

CONTRACTOR _____

PRODUCT(S) USED PERM-A-BARRIER® VPL Membrane

TOTAL AREA (SF) _____

DATE OF COMPLETED INSTALLATION _____

GCP Applied Technologies Inc. ("GCP") hereby warrants that for a period of Five (5) years from the date of completion of installation identified above, the air permeance of a continuous coating of Membrane when installed and used in strict conformance with the written instructions of GCP will not exceed 0.02 L/s.m² when tested according to ASTM E 2178 at a pressure differential of 75 Pa, and the vapor permeance of Membrane when installed and used in strict conformance with the written instructions of GCP will be no less than 10.0 perms when tested according to ASTM E96 Method B.

If at any time during such Five (5) year period the Membrane is found by GCP not to comply with this warranty, then GCP will supply to the owner replacement Membrane in a quantity equal to the material found to be nonconforming, with a value not to exceed the purchase price for the material paid to GCP for the original installation.

This warranty does not apply to any failure caused by or due to workmanship or improper installation of the Membrane, abuse of the Membrane, or chemical incompatibility with other materials, acts of God, movement or cracks in excess of 1/16 inch of the immediate substrate, inadequate or faulty design of the subject structure or to repairs or installations made by other persons not authorized by GCP. In addition, this warranty does not cover any costs or expenses associated with 1) the removal or replacement of any material including the exterior sheathing or facade in connection with the testing, repair, removal or replacement of the Membrane and, 2) damages or repairs of any kind or nature to the subject building or its' contents from air, vapor, water or otherwise.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY AND ALL OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE REMEDIES OF THE OWNER FOR ANY BREACH OF THIS WARRANTY SHALL BE LIMITED TO THOSE HEREIN PROVIDED TO THE EXCLUSION OF ANY AND ALL OTHER REMEDIES. GCP SHALL NOT BE LIABLE IN ANY CASE FOR ANY DAMAGE TO THE BUILDING OR THE CONTENTS THEREOF, NOR WILL IT BE RESPONSIBLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR PENAL DAMAGES. NO AGREEMENT VARYING OR EXTENDING THE FOREGOING WARRANTY REMEDIES WILL BE BINDING UPON GCP UNLESS IN WRITING, SIGNED BY A DULY AUTHORIZED OFFICER OF GCP.

GCP Applied Technologies Inc.

By Title _____ Date _____

LIST OF DRAWINGS

LEGEND

WINDOW DETAILS AT MASONRY CLADDING

VPL-001	WINDOW HEAD DETAIL	MASONRY CLADDING
VPL-002	WINDOW JAMB DETAIL	MASONRY CLADDING
VPL-003	WINDOW SILL DETAIL	MASONRY CLADDING
VPL-003 (3D-1)	WINDOW FLASHING SEQUENCE	SHEET-APPLIED FLASHING
VPL-003 (3D-2)	SHEET-APPLIED FLASHING PRESTRIP	
VPL-003 (3D-3)	WINDOW FLASHING SEQUENCE	LIQUID-APPLIED FLASHING

BASE OF WALL DETAILS AT MASONRY CLADDING

VPL-004	BASE-OF-WALL DETAIL	MASONRY CLADDING
VPL-004 (3D-1)	BASE-OF-WALL FLASHING SEQ. (OPT. 1)	MASONRY CLADDING
VPL-004 (3D-2)	BASE-OF-WALL FLASHING SEQ. (OPT. 2)	MASONRY CLADDING
VPL-004 (ALT 1)	BASE-OF-WALL DETAIL (ALTERNATE 1)	MASONRY CLADDING
VPL-004 (ALT 2)	BASE-OF-WALL DETAIL (ALTERNATE 2)	MASONRY CLADDING

LEDGER DETAILS AT MASONRY CLADDING

VPL-005	FLOOR LINE DETAIL	MASONRY CLADDING
VPL-005 (3D-1)	FLOOR LINE FLASHING SEQ. (OPT. 1)	MASONRY CLADDING
VPL-005 (3D-2)	FLOOR LINE FLASHING SEQ. (OPT. 2)	MASONRY CLADDING
VPL-006A	MASONRY ANCHOR DETAIL	CMU SUBSTRATE
VPL-006B	MASONRY ANCHOR DETAIL	FRAMED SUBSTRATE

PARAPET DETAILS AT MASONRY CLADDING

VPL-007	PARAPET DETAIL	MASONRY CLADDING
VPL-007 (ALT)	PARAPET DETAIL	MASONRY CLADDING

EXPANSION AND CONTROL JOINT DETAILS

VPL-008	EXPANSION JOINT DETAIL
VPL-009A	CONTROL JOINT DETAIL
VPL-009B	SHEATHING JOINT TREATMENT

WINDOW DETAILS AT NON-MASONRY CLADDING

VPL-010	WINDOW HEAD DETAIL	NON-MASONRY CLADDING
VPL-011	WINDOW JAMB DETAIL	NON-MASONRY CLADDING
VPL-012	WINDOW SILL DETAIL	NON-MASONRY CLADDING

NON-MASONRY CLADDING DETAILS

VPL-013	FLOOR LINE DETAIL	NON-MASONRY CLADDING
VPL-014	CONCRETE STEM WALL DETAIL	NON-MASONRY CLADDING
VPL-015	BASE-OF-WALL DETAIL	NON-MASONRY CLADDING
VPL-016	INSIDE CORNER DETAIL	NON-MASONRY CLADDING
VPL-017	OUTSIDE CORNER DETAIL	NON-MASONRY CLADDING
VPL-018	KNIFEPLATE PENETRATION DETAIL	NON-MASONRY CLADDING
VPL-019	PENETRATION DETAILS	NON-MASONRY CLADDING

CURTAINWALL DETAILS AT NON-MASONRY CLADDING

VPL-020	CURTAINWALL HEAD DETAIL	NON-MASONRY CLADDING
VPL-021	CURTAINWALL JAMB DETAIL	NON-MASONRY CLADDING
VPL-022	CURTAINWALL SILL DETAIL	NON-MASONRY CLADDING

DEFLECTION JOINT

VPL-023	DEFLECTION JOINT	NON-MASONRY CLADDING
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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.
- 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.

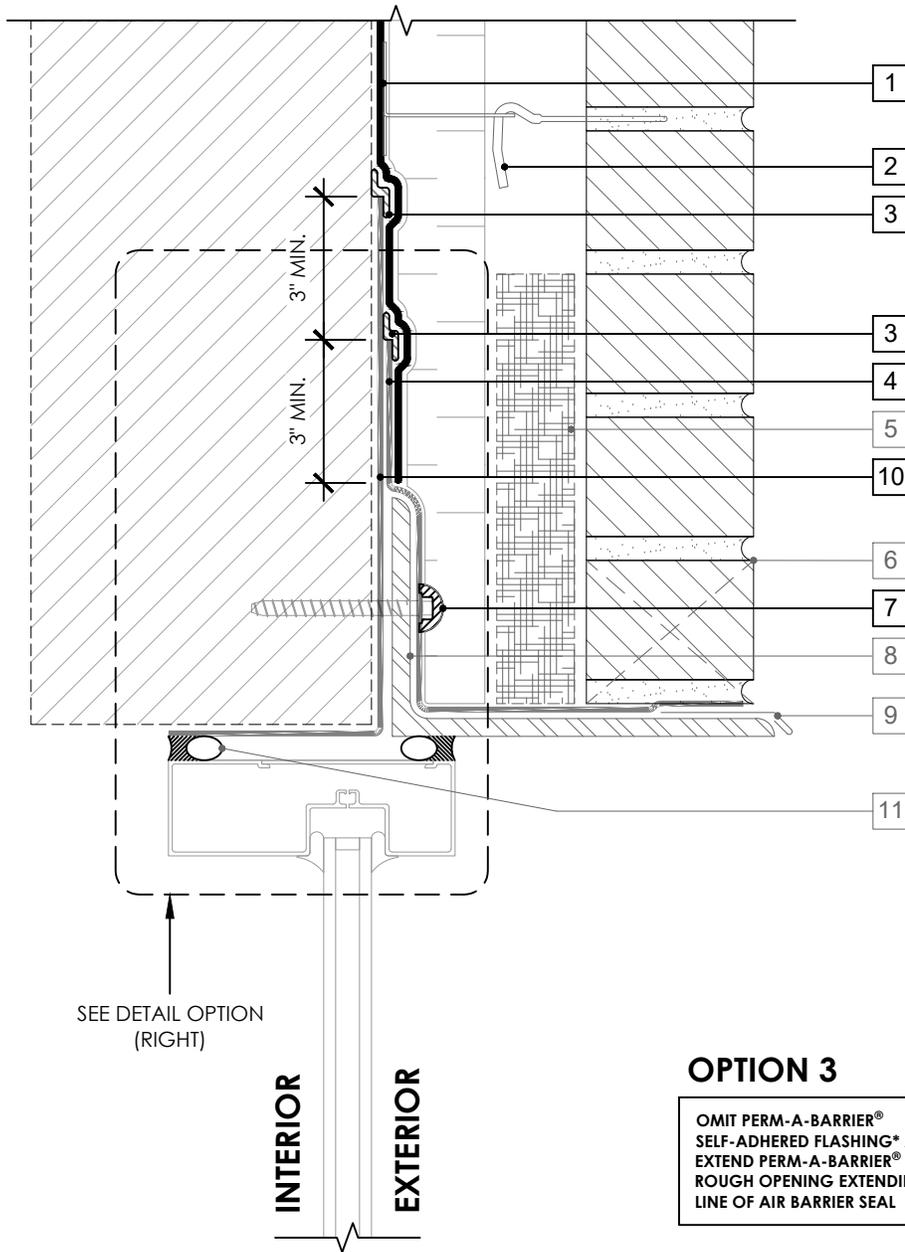


LIST OF DRAWINGS

PERM-A-BARRIER® VPL

DRAWING:	VPL-000
SCALE:	3" = 1'
EFFECTIVE DATE:	2020.05.21
SUPERCEDES:	NEW

OPTION 1



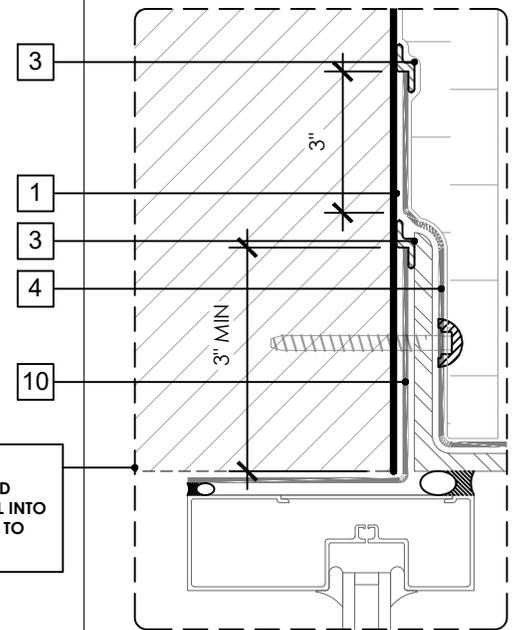
OPTION 3

OMIT PERM-A-BARRIER® SELF-ADHERED FLASHING* AND EXTEND PERM-A-BARRIER® VPL INTO ROUGH OPENING EXTENDING TO LINE OF AIR BARRIER SEAL

LEGEND

1. PERM-A-BARRIER® VPL
2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
4. PERM-A-BARRIER® WALL FLASHING (STAR CUT AT BOLT) - PRIME SUBSTRATE WHERE REQUIRED
5. MORTAR COLLECTION MESH
6. MASONRY WEEP/VENT
7. PERM-A-BARRIER® S100 SEALANT AROUND FASTENER
8. CONTINUOUS SHELF ANGLE SUPPORT PER STRUCTURAL
9. SHEET METAL FLASHING PER ARCH
10. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED
11. INTERIOR AIR BARRIER SEALANT OVER BACKER ROD AT WINDOW PERIMETER

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.
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 HEAD DETAIL - MASONRY CLADDING

PERM-A-BARRIER® VPL

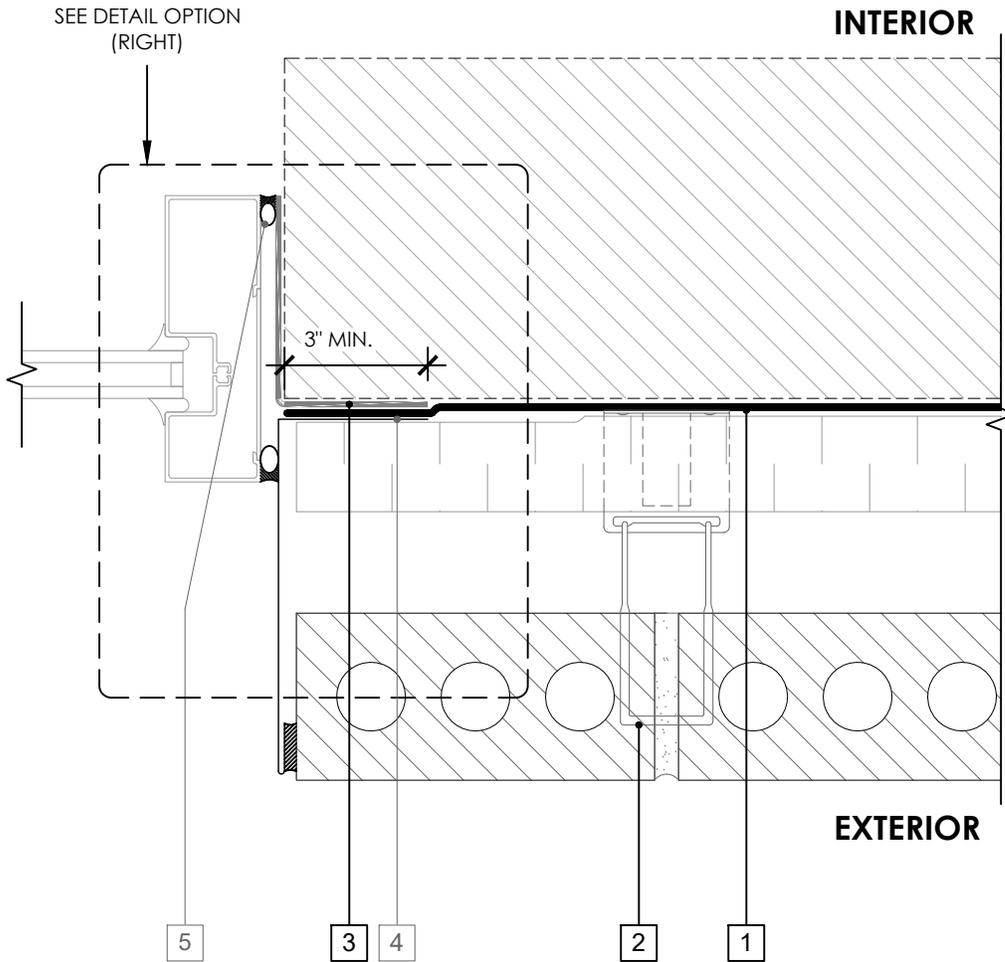
DRAWING: VPL-001

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

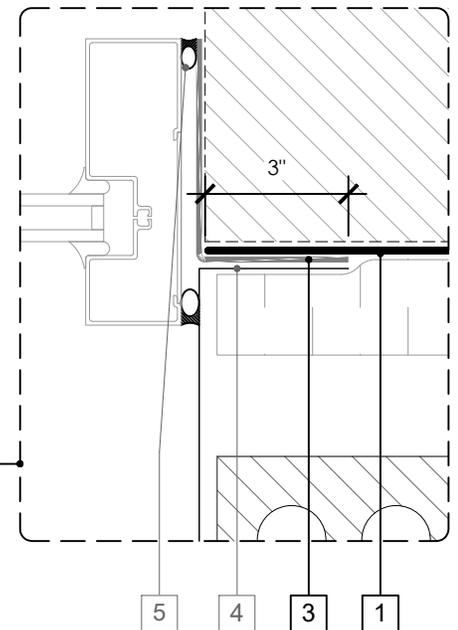
OPTION 1



LEGEND

1. PERM-A-BARRIER® VPL
2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-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



OPTION 3

OMIT PERM-A-BARRIER® SELF-ADHERED FLASHING* AND EXTEND PERM-A-BARRIER® VPL INTO ROUGH OPENING EXTENDING TO LINE OF AIR BARRIER SEAL

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 JAMB DETAIL - MASONRY CLADDING

PERM-A-BARRIER® VPL

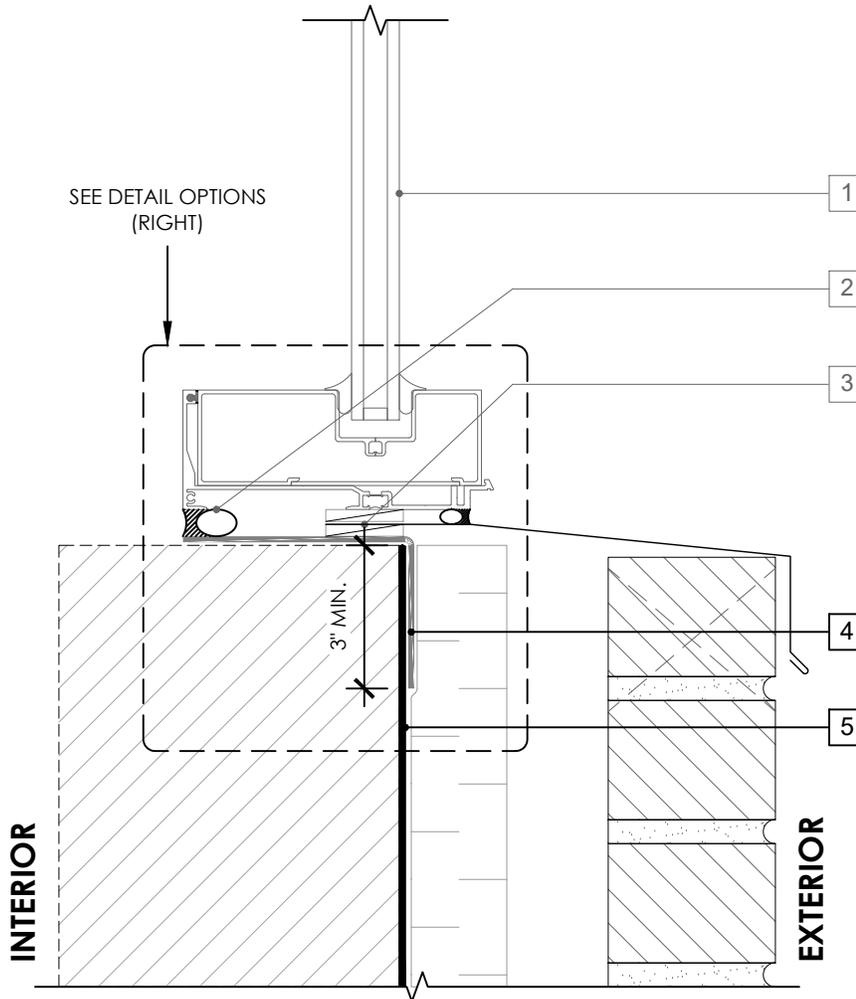
DRAWING: VPL-002

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

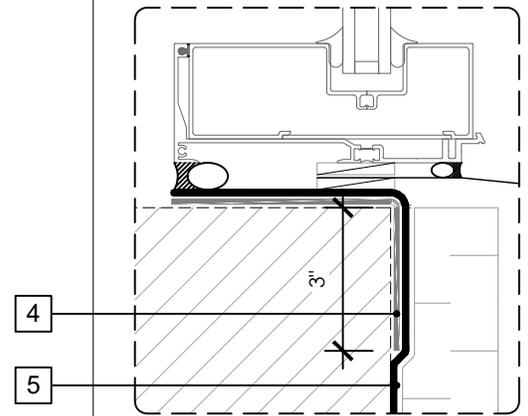
OPTION 1



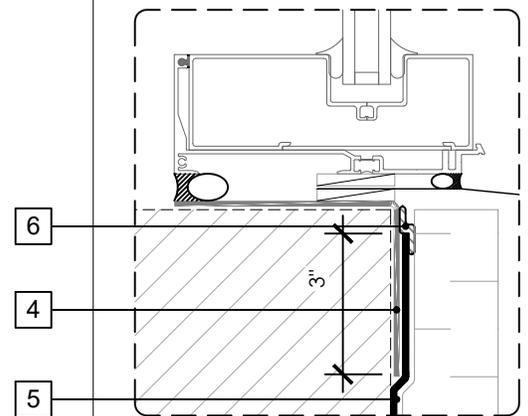
LEGEND

1. NON-FLANGED WINDOW SYSTEM
2. INTERIOR AIR BARRIER SEALANT OVER BACKER ROD AT WINDOW PERIMETER
3. SHEET METAL FLASHING - SANDWICHED BETWEEN INTERMITTENT SHIMS
4. **PERM-A-BARRIER® SELF-ADHERED FLASHING*** - PRIME SUBSTRATE WHERE REQUIRED
5. **PERM-A-BARRIER® VPL**
6. **PERM-A-BARRIER® S100 SEALANT** - 1-INCH WIDE TROWELED BEAD

OPTION 2



OPTION 3



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 SILL DETAIL - MASONRY CLADDING

PERM-A-BARRIER® VPL

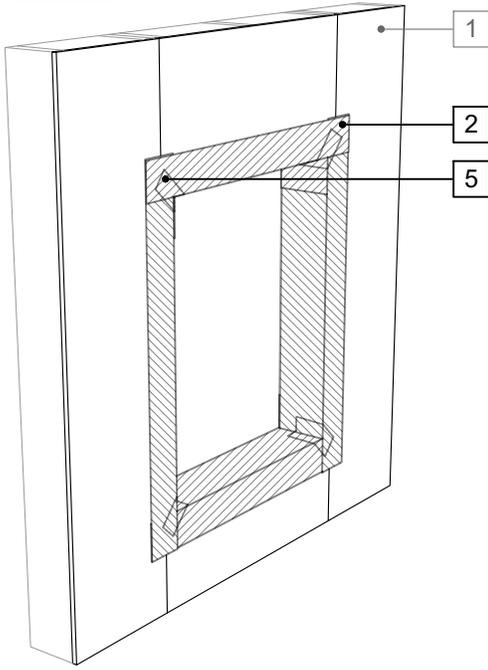
DRAWING: VPL-003

SCALE: 3" = 1'

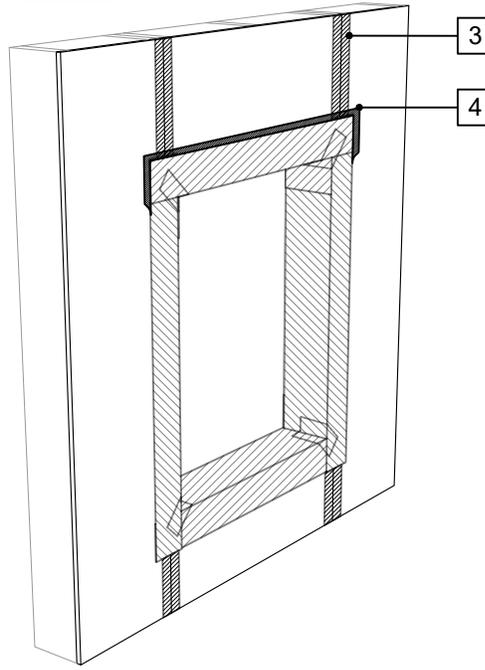
EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

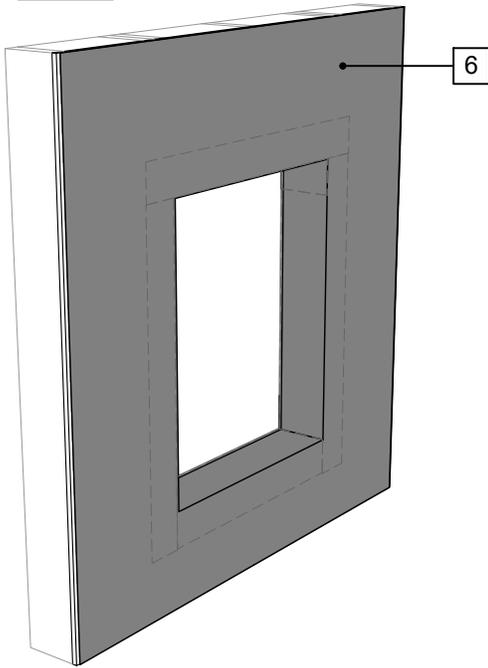
STEP 1



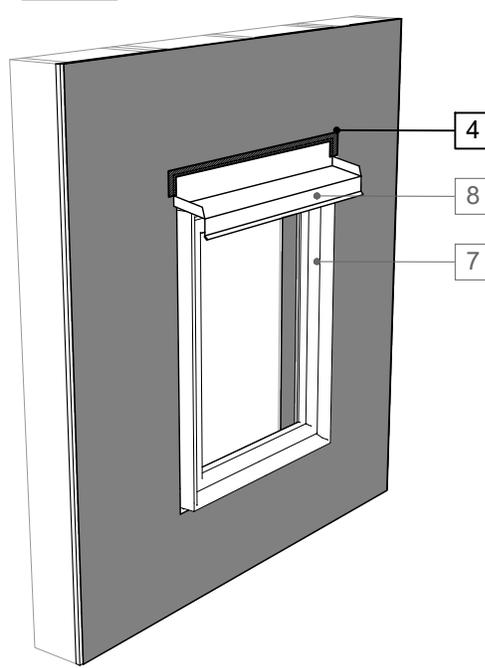
STEP 2



STEP 3



STEP 4



LEGEND

1. SHEATHING SUBSTRATE
2. PERM-A-BARRIER® DETAIL MEMBRANE, NPS DETAIL MEMBRANE, ALUMINUM FLASHING, OR WALL FLASHING - PRIME SUBSTRATE WHERE REQUIRED (SEE DRAWING VPL-003 (3D-2) FOR MORE INFORMATION)
3. JOINT TREATMENT PER DETAIL VPL-009B
4. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
5. CORNER PATCH
6. PERM-A-BARRIER® VPL
7. WINDOW PER ARCH
8. 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
- SEAL ALL NON-WATER SHEDDING EDGES WITH ACCEPTABLE SEALANT
- OPTIONAL - WINDOW FLASHING SEQUENCE CAN BE COMPLETED AFTER FIELD APPLICATION OF PERM-A-BARRIER® VPL

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 - SHEET-APPLIED FLASHING

PERM-A-BARRIER® VPL

DRAWING: VPL-003 (3D-1)

SCALE: 3" = 1'

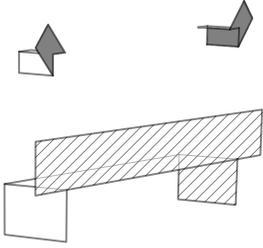
EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

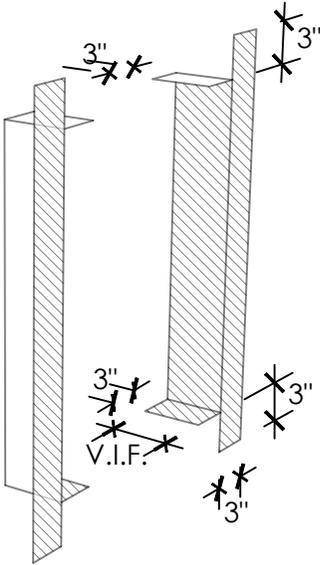
WINDOW PRESTRIP VARIATIONS

A. WITHOUT BACK DAM ANGLE

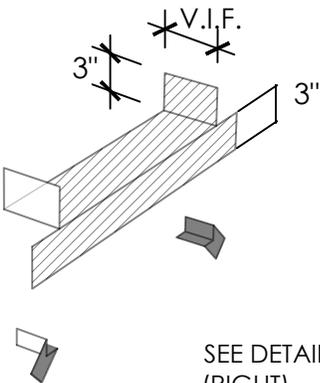
STEP 3



STEP 2



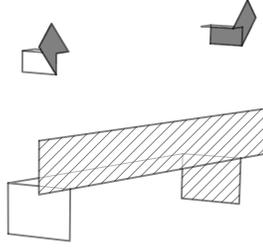
STEP 1



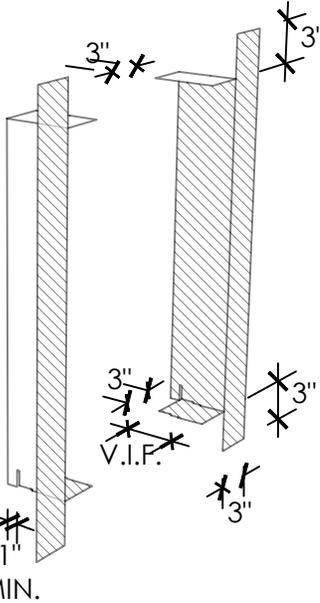
SEE DETAIL A (RIGHT)

B. WITH BACK DAM ANGLE

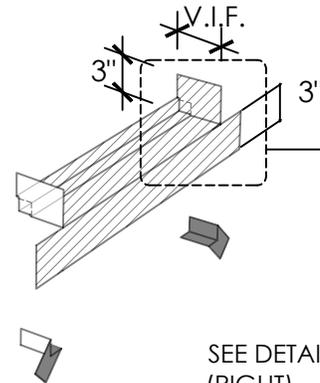
STEP 3



STEP 2



STEP 1

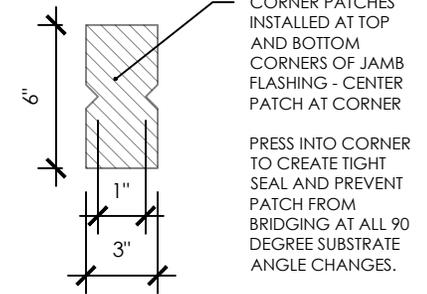


SEE DETAIL B (RIGHT)

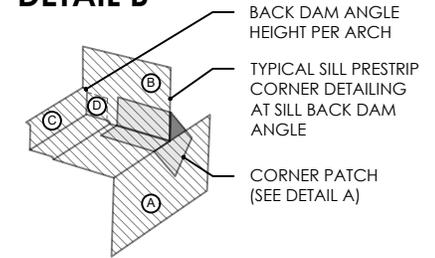
LEGEND

- WINDOW PRESTRIP PERM-A-BARRIER®
- DETAIL MEMBRANE, NPS DETAIL MEMBRANE, ALUMINUM FLASHING, OR WALL FLASHING
- PRIME SUBSTRATE WHERE REQUIRED

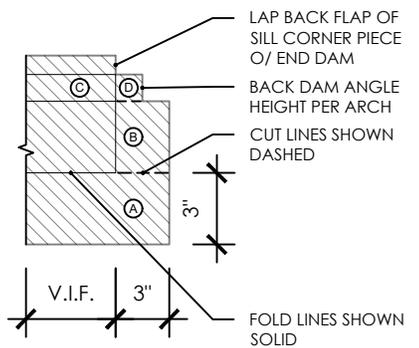
DETAIL A



DETAIL B



FOLDING TEMPLATE



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.

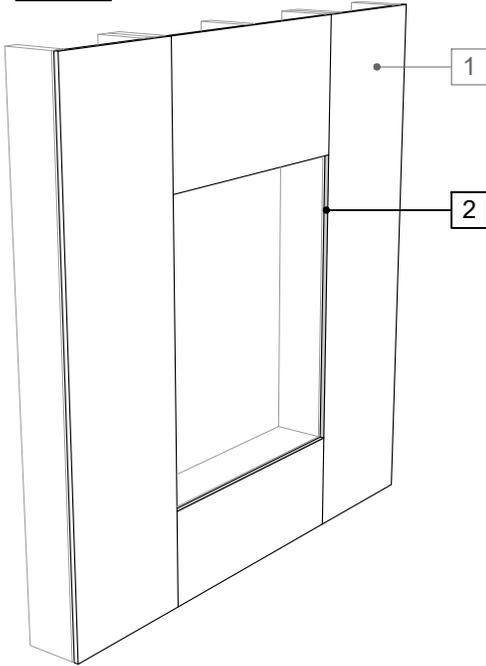


SHEET-APPLIED FLASHING PRESTRIP

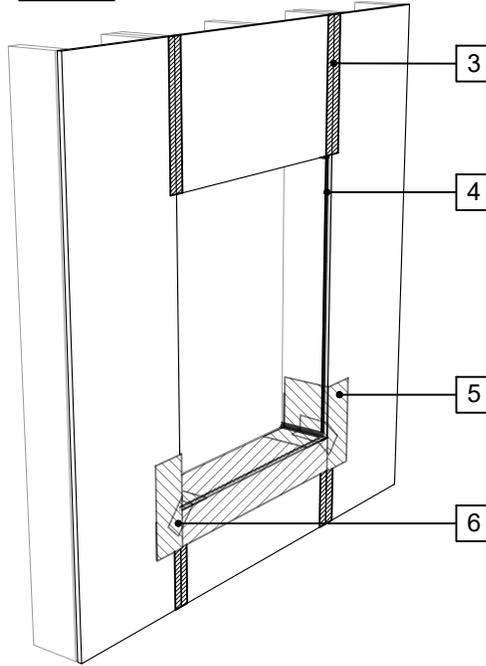
PERM-A-BARRIER® VPL

DRAWING:	VPL-003 (3D-2)
SCALE:	3" = 1'
EFFECTIVE DATE:	2020.05.21
SUPERCEDES:	NEW

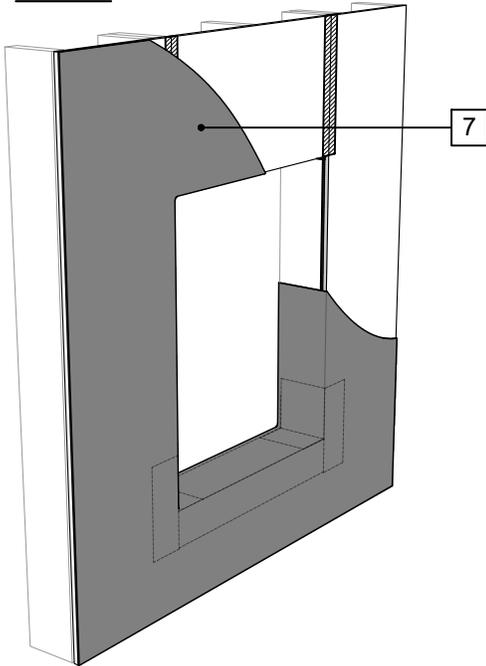
STEP 1



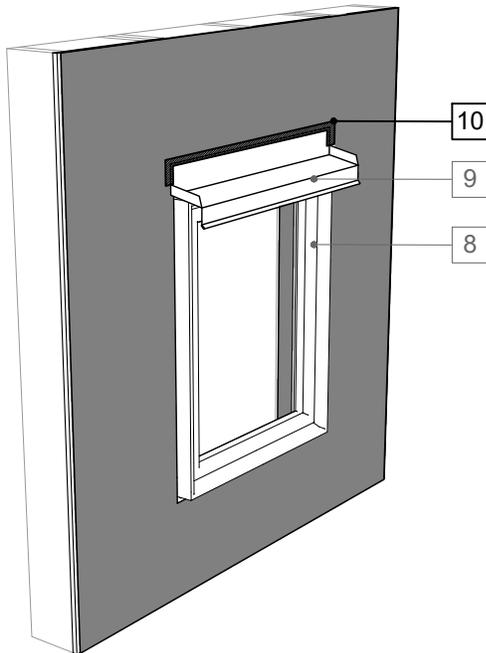
STEP 2



STEP 3



STEP 4



LEGEND

1. SHEATHING SUBSTRATE
2. PERM-A-BARRIER® PRIMER AT ALL EXPOSED GYPSUM SHEATHING EDGES
3. JOINT TREATMENT PER DETAIL VPL-009B
4. GCP APPROVED SEALANT AT ALL TRANSITIONS BETWEEN FRAMING AND SHEATHING
5. PERM-A-BARRIER® DETAIL MEMBRANE, NPS DETAIL MEMBRANE, ALUMINUM FLASHING, OR WALL FLASHING - PRIME SUBSTRATE WHERE REQUIRED (SEE STEP 1 OF DRAWING VPL-003 (3D-2))
6. CORNER PATCH
7. PERM-A-BARRIER® VPL
8. WINDOW PER ARCH
9. SHEET METAL HEAD FLASHING PER ARCH.
10. PERM-A-BARRIER® S100 SEALANT

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

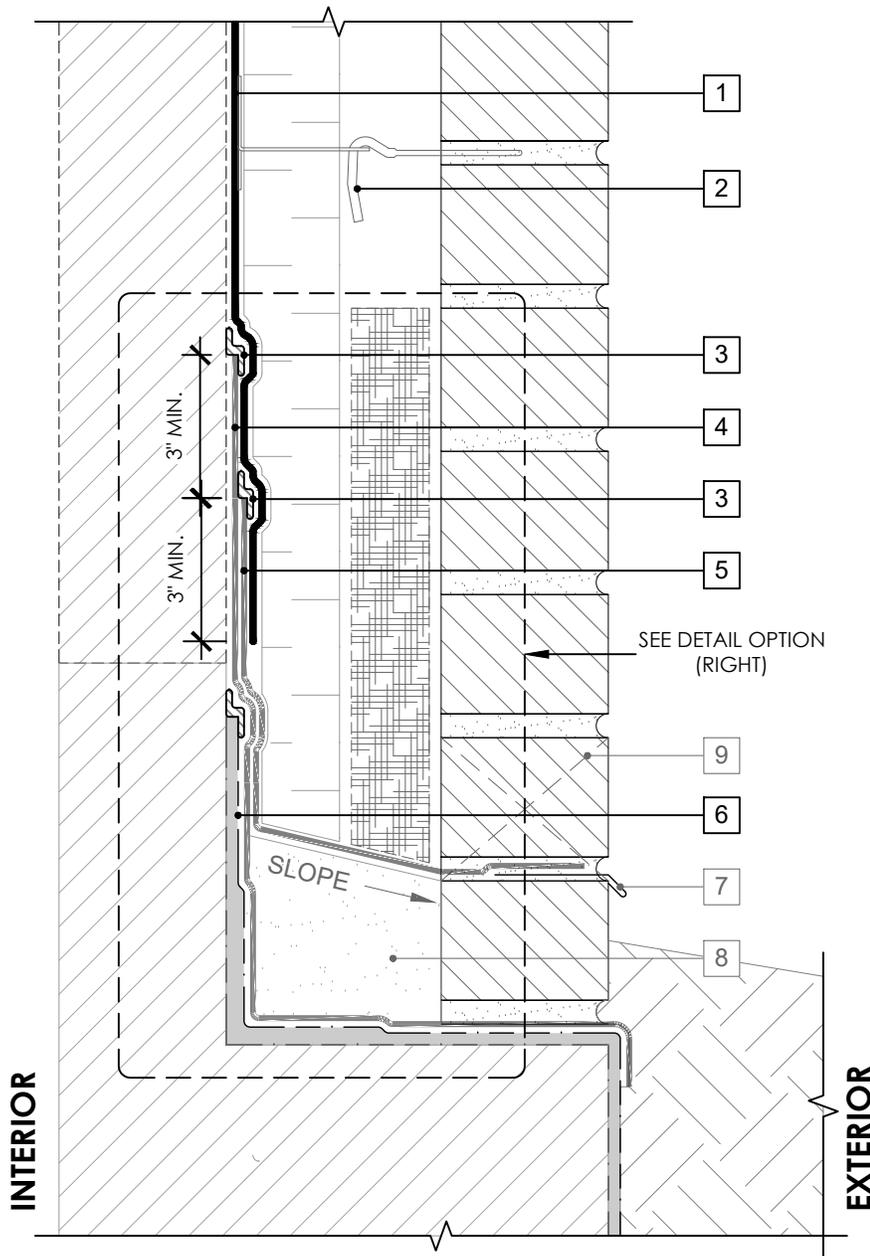
DRAWING: VPL-003 (3D-3)

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

OPTION 1

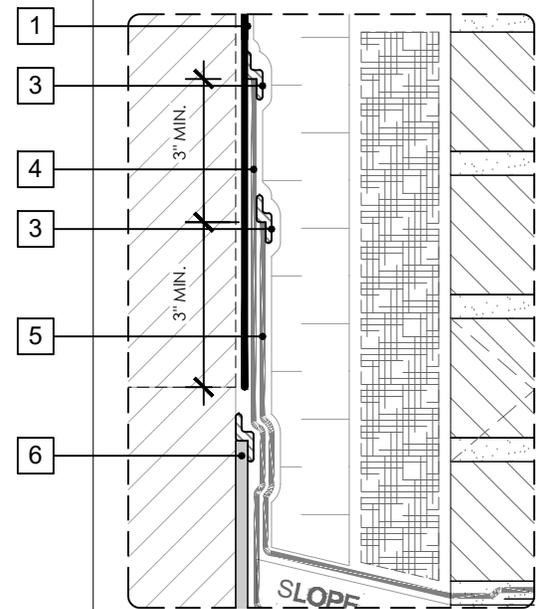


SEE VPL-004 (3D-1) FOR 3D DETAIL

LEGEND

1. PERM-A-BARRIER® VPL
2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED 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

OPTION 2



SEE VPL-004 (3D-2) FOR 3D DETAIL

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 - MASONRY CLADDING

PERM-A-BARRIER® VPL

DRAWING: VPL-004

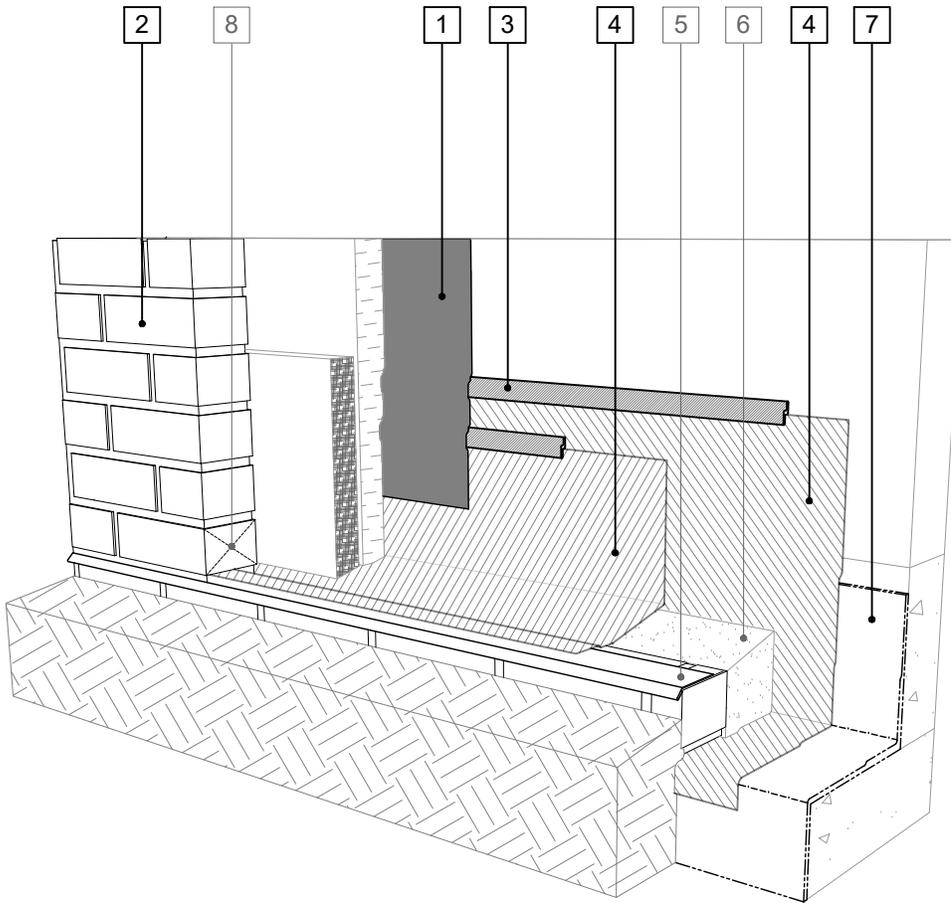
SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

LEGEND

1. PERM-A-BARRIER® VPL
2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED 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



SEE VPL-004 (OPTION 1) FOR 2D DETAIL

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) - MASONRY CLADDING

PERM-A-BARRIER® VPL

DRAWING: VPL-004 (3D-1)

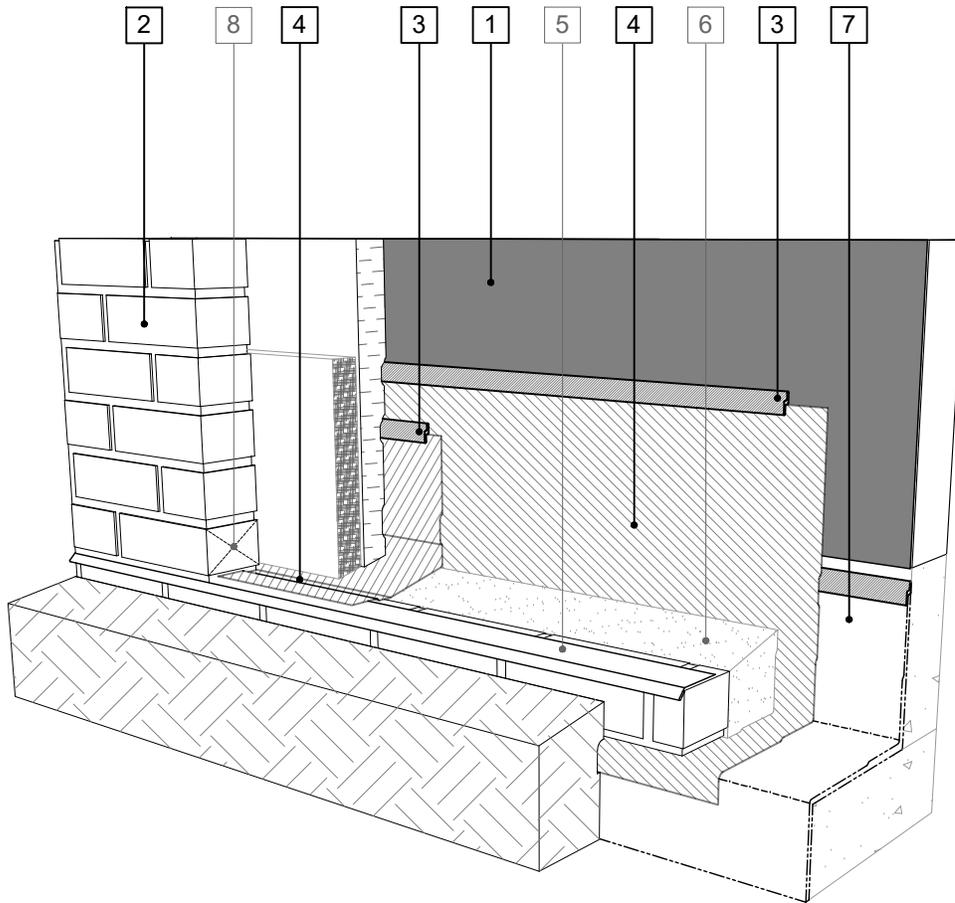
SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

LEGEND

1. **PERM-A-BARRIER® VPL**
2. **MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)**
3. **PERM-A-BARRIER® S100 SEALANT**
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



SEE VPL-004 (OPTION 2) FOR 2D DETAIL

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 2) - MASONRY CLADDING

PERM-A-BARRIER® VPL

DRAWING: VPL-004 (3D-2)

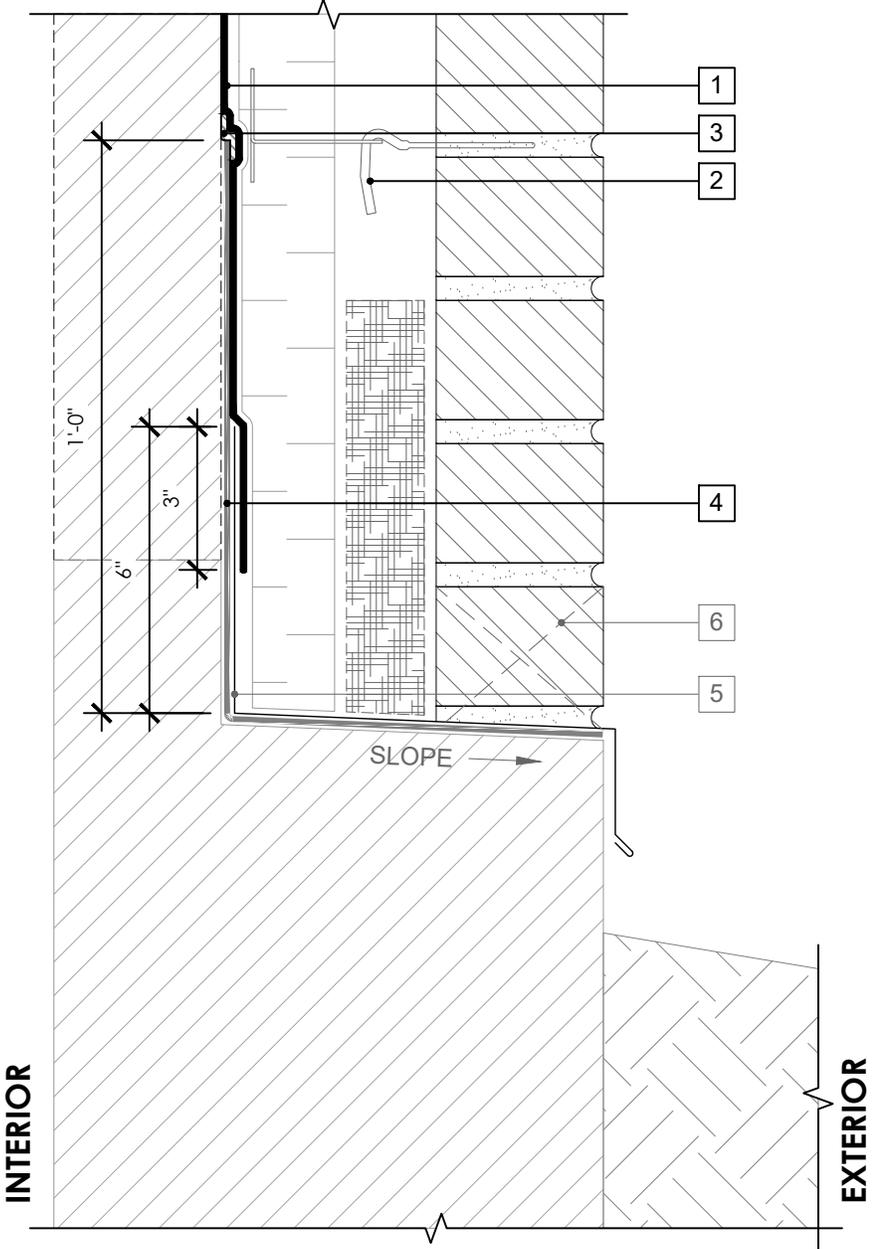
SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

LEGEND

- 1. PERM-A-BARRIER® VPL
- 2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)
- 3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED 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.
- 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 (ALTERNATE 1) -
MASONRY CLADDING**

PERM-A-BARRIER® VPL

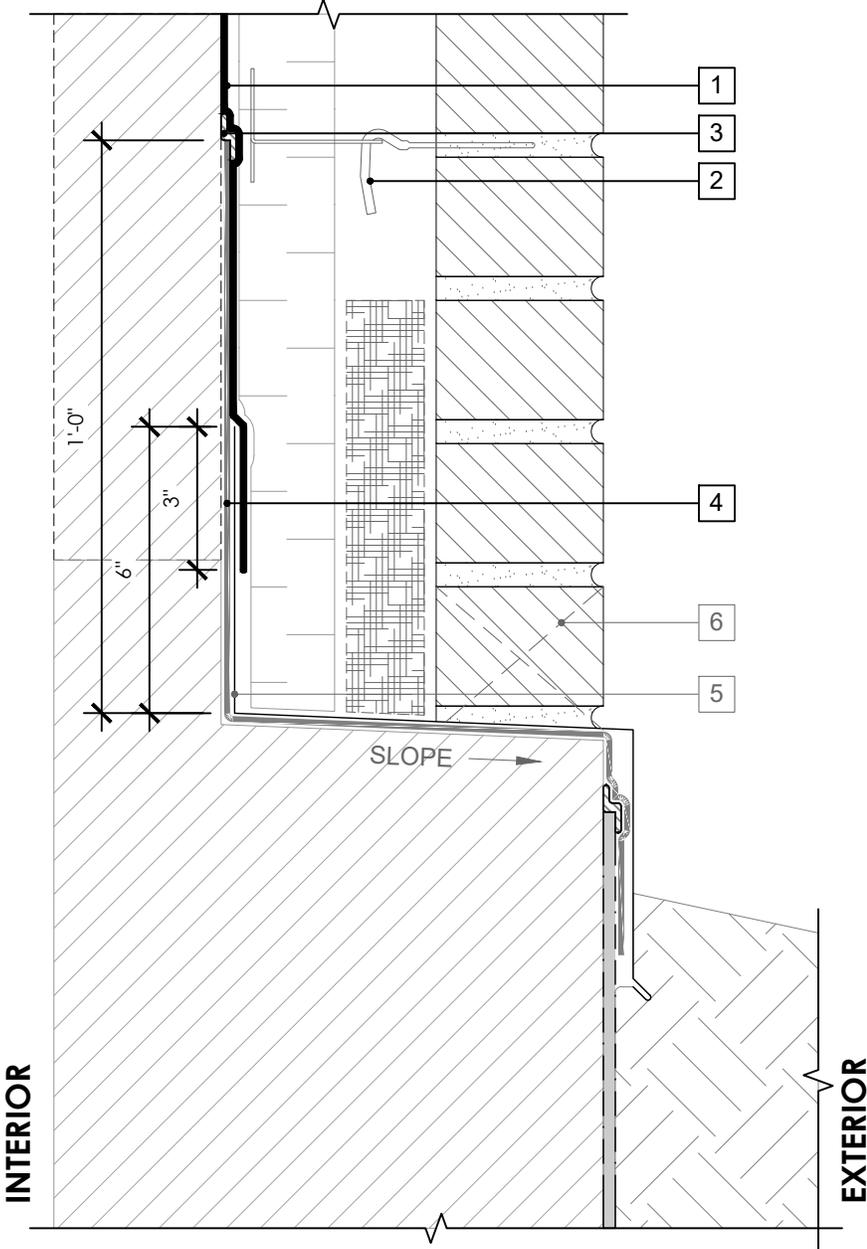
DRAWING:	VPL-004 (ALT 1)
SCALE:	3" = 1'
EFFECTIVE DATE:	2020.05.21
SUPERCEDES:	NEW

LEGEND

- 1. PERM-A-BARRIER® VPL
- 2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)
- 3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
- 4. PERM-A-BARRIER® WALL FLASHING - PRIME SUBSTRATE WHERE REQUIRED
- 5. SHEET METAL FLASHING PER ARCH
- 6. MASONRY WEEP/VENT

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.

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

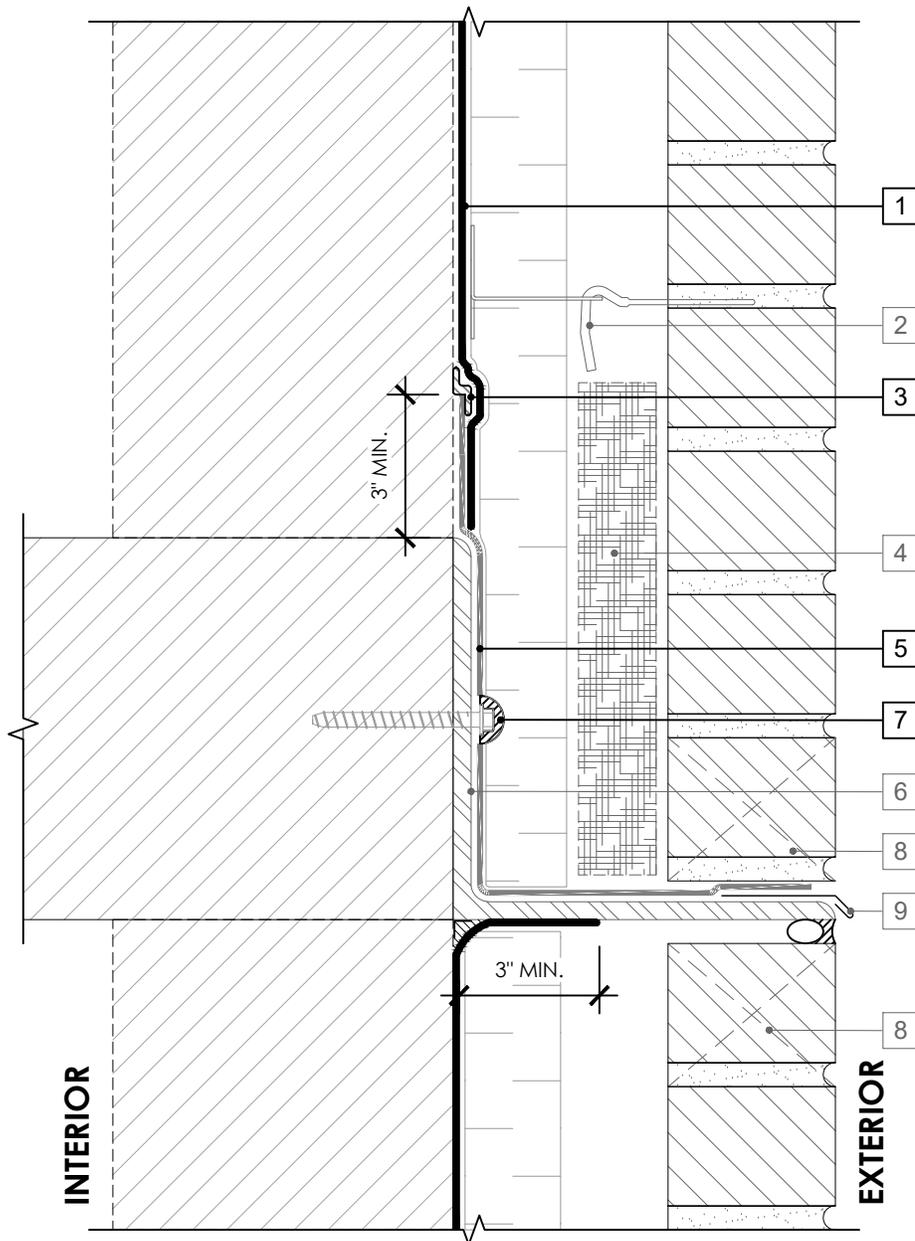


**BASE-OF-WALL DETAIL (ALTERNATE 2) -
MASONRY CLADDING**

PERM-A-BARRIER® VPL

DRAWING:	VPL-004 (ALT 2)
SCALE:	3" = 1'
EFFECTIVE DATE:	2020.05.21
SUPERCEDES:	NEW

OPTION 1

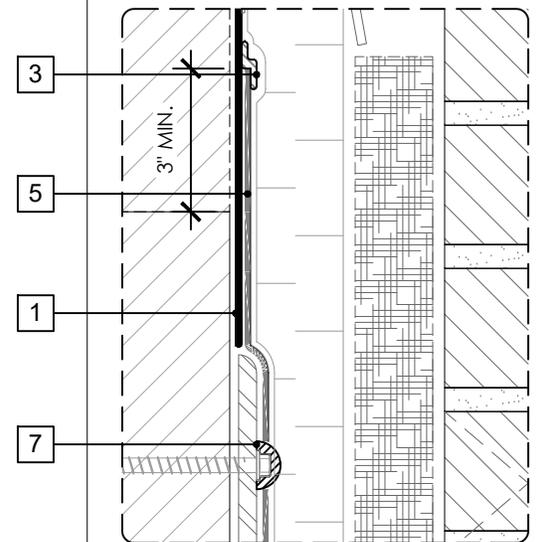


SEE VPL-005 (3D-1) FOR 3D DETAIL

LEGEND

1. PERM-A-BARRIER® VPL
2. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
4. MORTAR COLLECTION MESH
5. PERM-A-BARRIER® WALL FLASHING (STAR CUT AT BOLT) - PRIME SUBSTRATE WHERE REQUIRED
6. CONTINUOUS SHELF ANGLE SUPPORT PER STRUCTURAL
7. PERM-A-BARRIER® S100 SEALANT AROUND FASTENER
8. MASONRY WEEP/VENT
9. SHEET METAL FLASHING PER ARCH

OPTION 2



SEE VPL-005 (3D-2) FOR 3D DETAIL

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.



FLOOR LINE DETAIL - MASONRY CLADDING

PERM-A-BARRIER® VPL

DRAWING: VPL-005

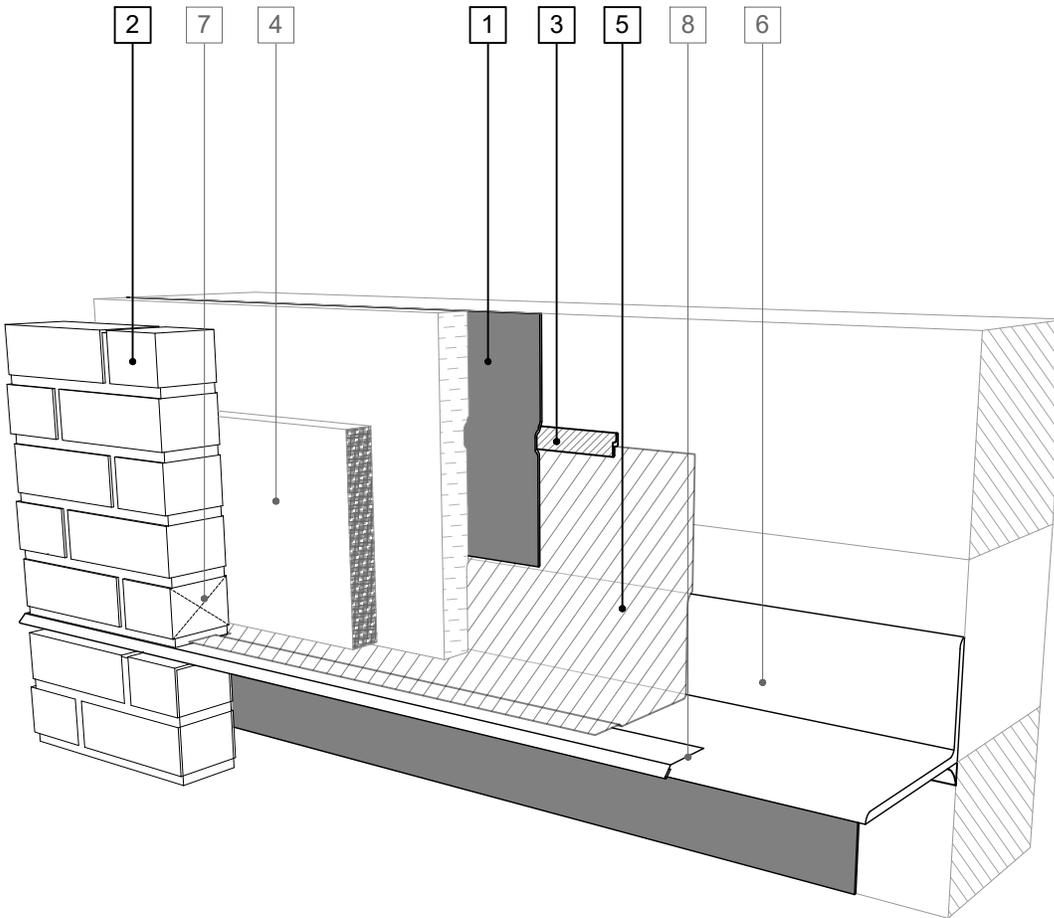
SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

LEGEND

1. **PERM-A-BARRIER® VPL**
2. **MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)**
3. **PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD**
4. MORTAR COLLECTION MESH
5. **PERM-A-BARRIER® WALL FLASHING - PRIME SUBSTRATE WHERE REQUIRED**
6. CONTINUOUS SHELF ANGLE SUPPORT PER STRUCTURAL
7. MASONRY WEEP/VENT
8. SHEET METAL FLASHING PER ARCH



SEE VPL-005 (OPTION 1) FOR 2D DETAIL

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.



FLOOR LINE FLASHING SEQUENCE (OPT. 1) - MASONRY CLADDING

PERM-A-BARRIER® VPL

DRAWING: VPL-005 (3D-1)

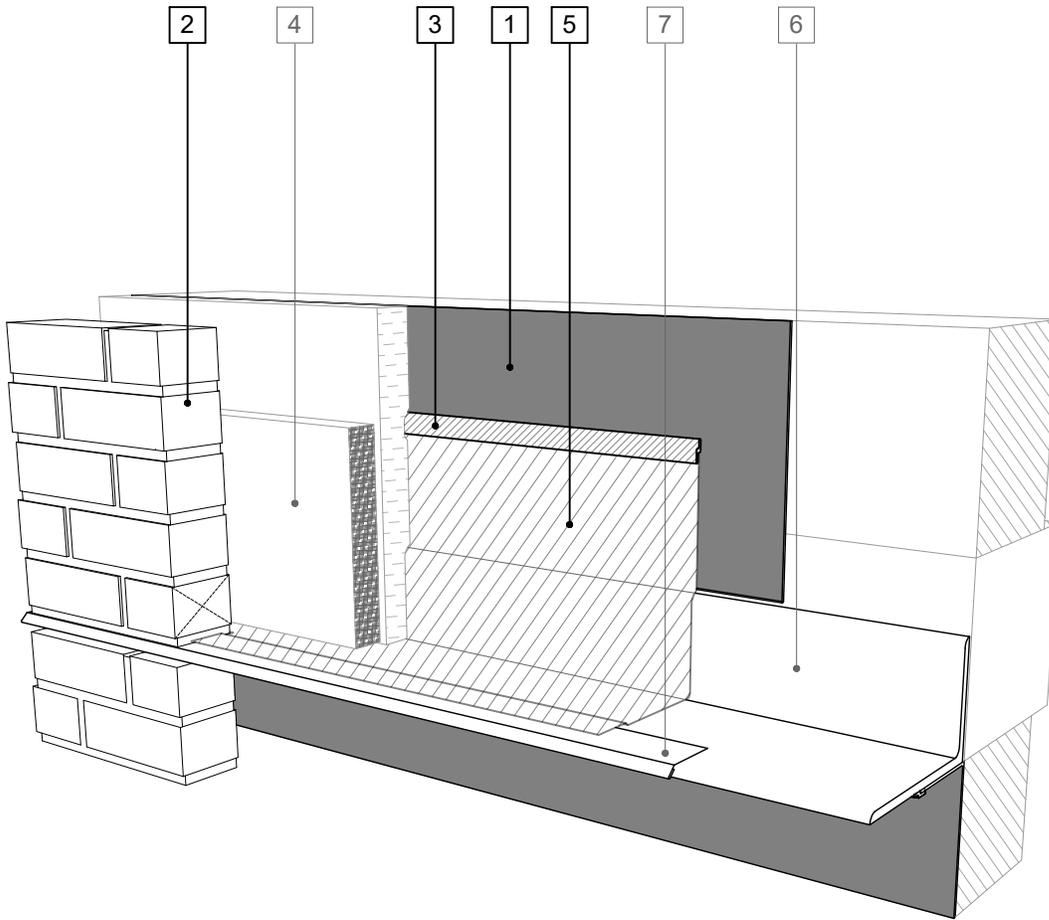
SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

LEGEND

1. **PERM-A-BARRIER® VPL**
2. **MASONRY ANCHOR DETAILING (SEE DRAWING VPL-006)**
3. **PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD**
4. MORTAR COLLECTION MESH
5. **PERM-A-BARRIER® WALL FLASHING - PRIME SUBSTRATE WHERE REQUIRED**
6. CONTINUOUS SHELF ANGLE SUPPORT PER STRUCTURAL
7. SHEET METAL FLASHING PER ARCH



SEE VPL-005 (OPTION 2) FOR 2D DETAIL

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.



FLOOR LINE FLASHING SEQUENCE (OPT. 2) - MASONRY CLADDING

PERM-A-BARRIER® VPL

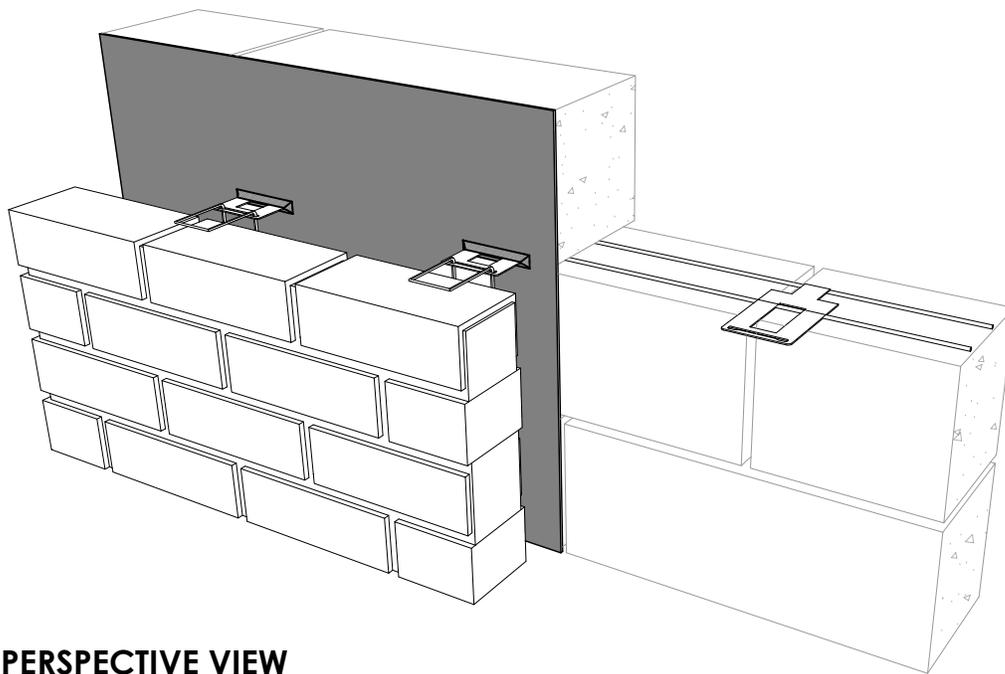
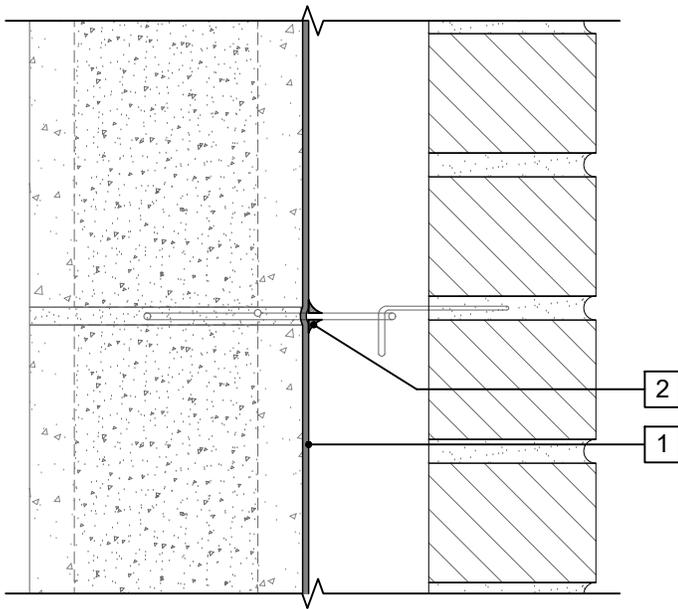
DRAWING: VPL-005 (3D-2)

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

SECTION VIEW



PERSPECTIVE VIEW

LEGEND

1. PERM-A-BARRIER® VPL
2. PERM-A-BARRIER® S100 SEALANT FILLET SURROUNDING WIRE TIE PENETRATION (OPTIONAL)

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 DETAILING - CMU SUBSTRATE

PERM-A-BARRIER® VPL

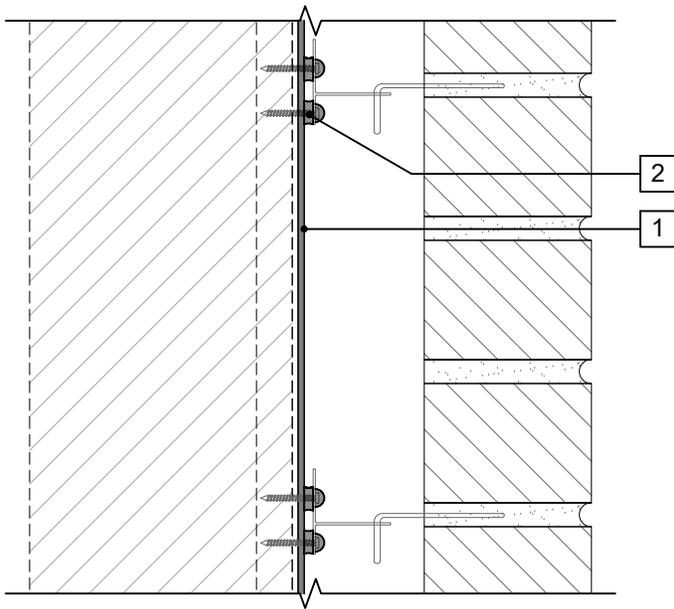
DRAWING: VPL-006A

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

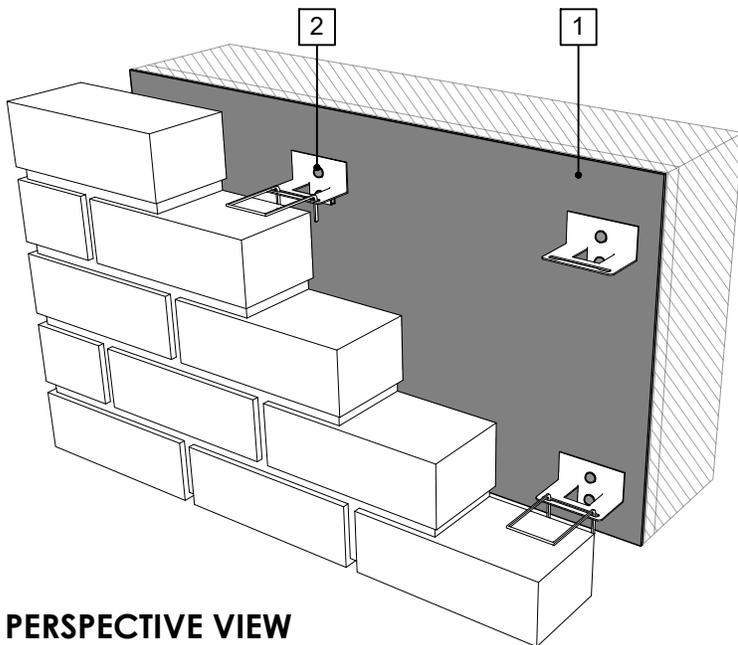
SUPERCEDES: NEW

SECTION VIEW



LEGEND

1. PERM-A-BARRIER® VPL
2. PERM-A-BARRIER® S100 SEALANT
AROUND FASTENER AT FRONT AND
BACK FACE OF MASONRY ANCHOR



PERSPECTIVE VIEW

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.

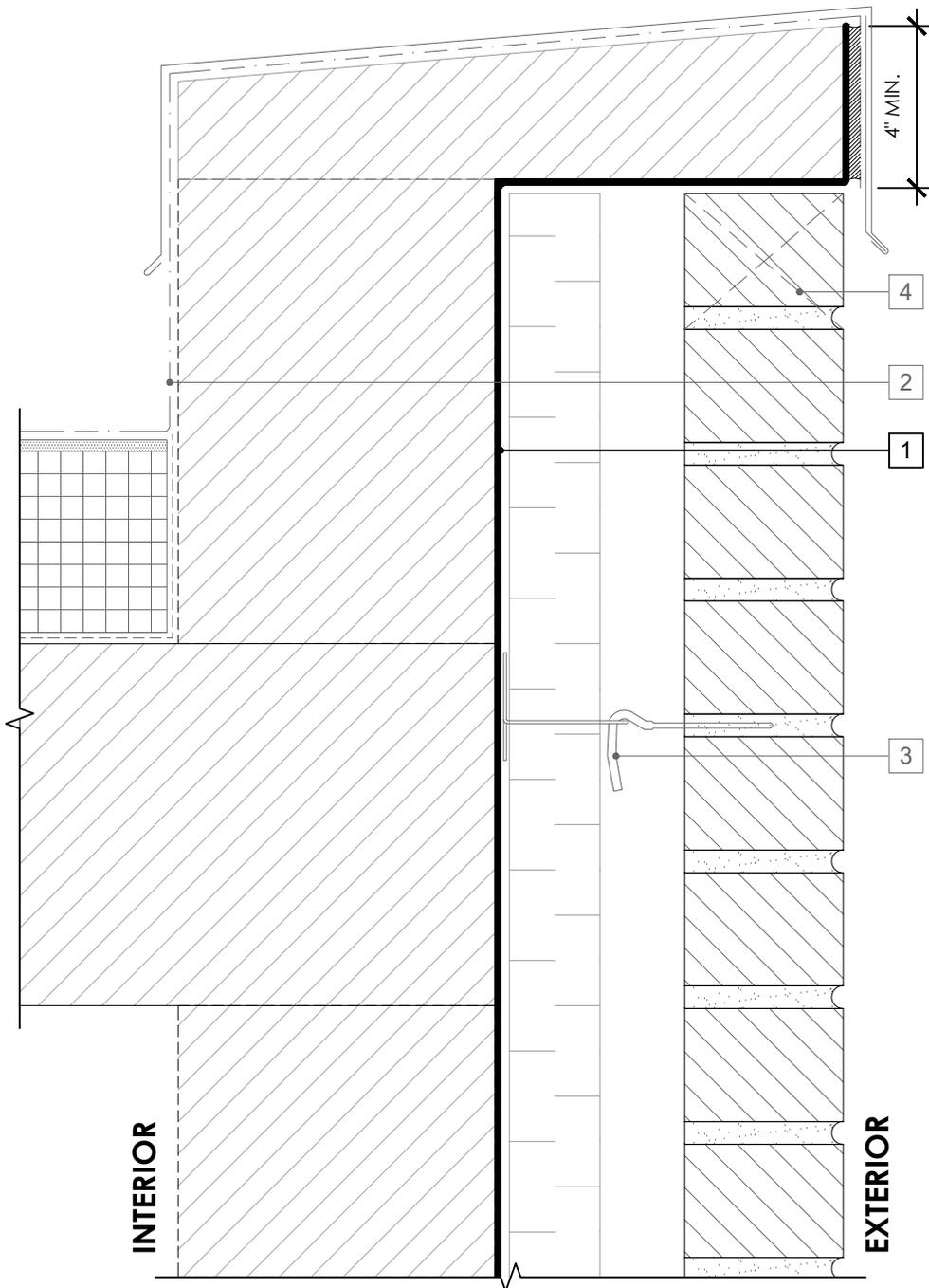
*Refer to air barrier system product data sheet for acceptable self-adhered flashing products.



MASONRY ANCHOR DETAILING - FRAMED SUBSTRATE

PERM-A-BARRIER® VPL

DRAWING:	VPL-006B
SCALE:	3" = 1'
EFFECTIVE DATE:	2020.05.21
SUPERCEDES:	NEW



LEGEND

1. **PERM-A-BARRIER® VPL**
2. ROOF MEMBRANE AND ROOF DETAILS
3. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-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.
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.



PARAPET DETAIL - MASONRY CLADDING

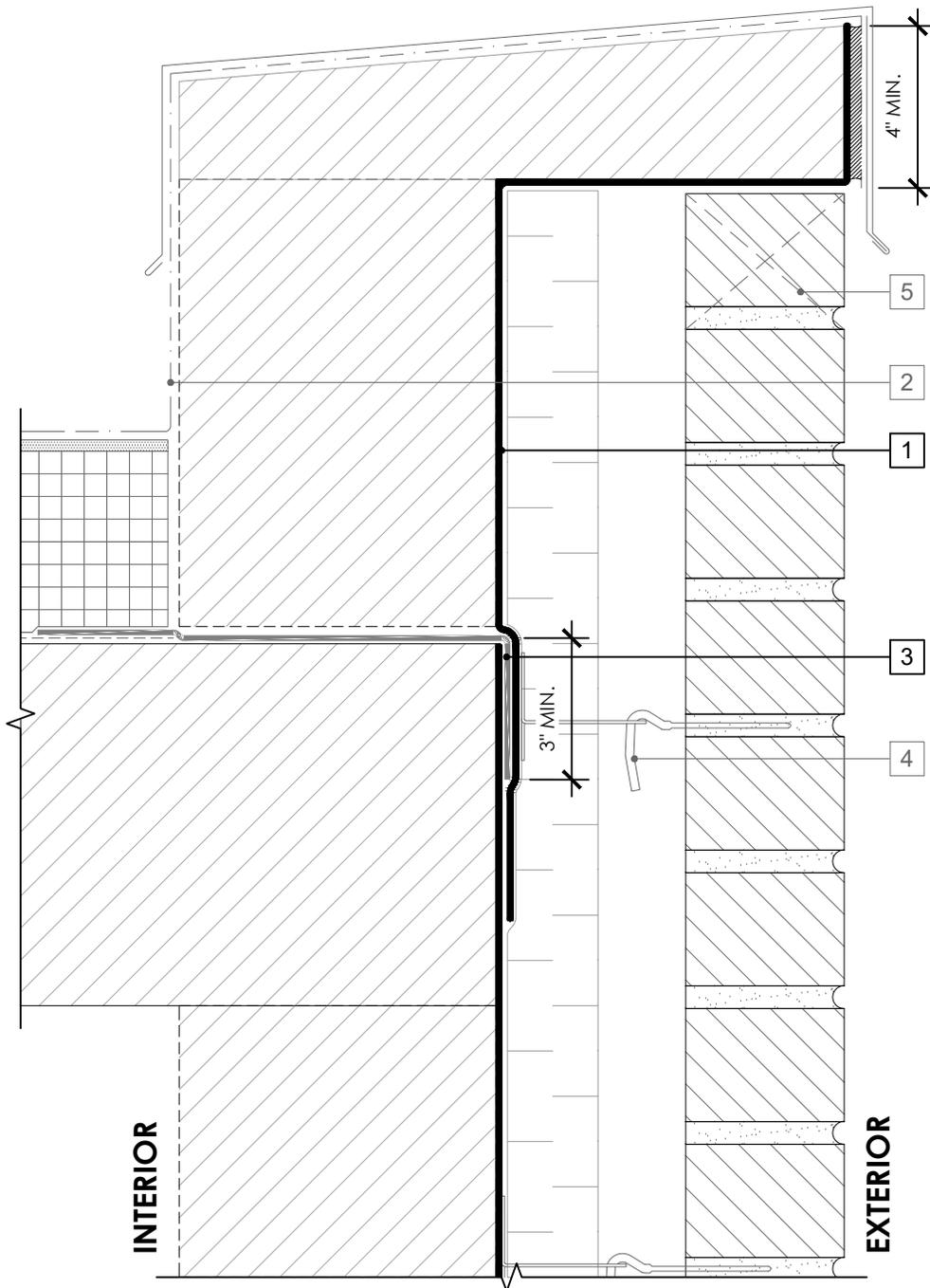
PERM-A-BARRIER® VPL

DRAWING: VPL-007

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. PERM-A-BARRIER® VPL
2. ROOF MEMBRANE AND ROOF DETAILS
3. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED
4. MASONRY ANCHOR DETAILING (SEE DRAWING VPL-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.
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.



PARAPET DETAIL (ALTERNATE) - MASONRY CLADDING

PERM-A-BARRIER® VPL

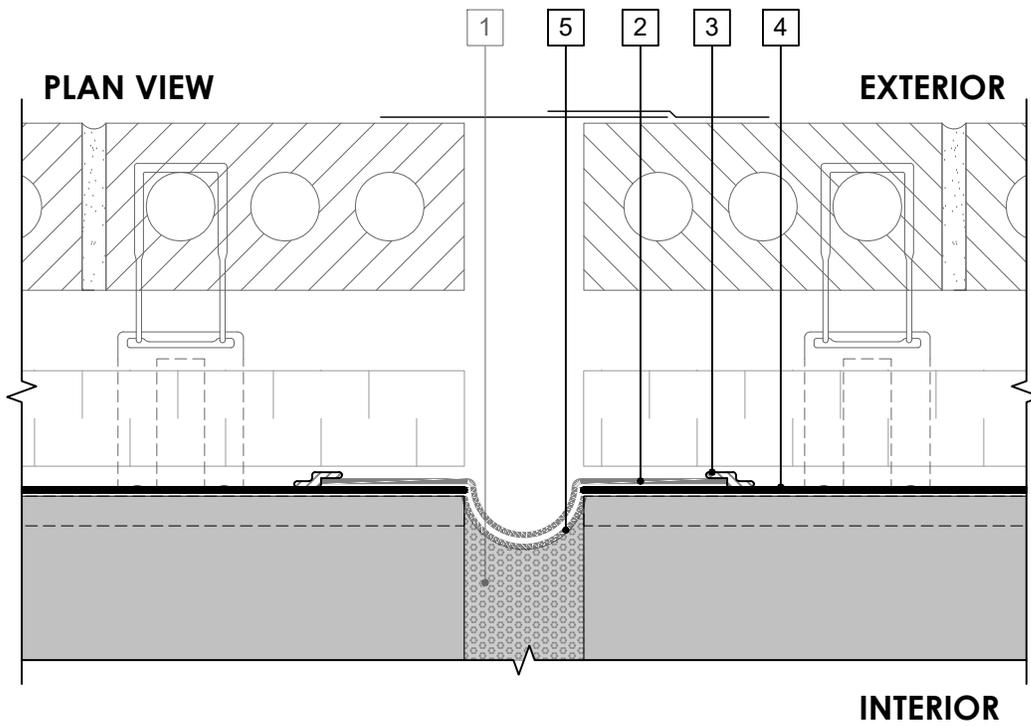
113

DRAWING: VPL-007 (ALT)

SCALE: 3" = 1'

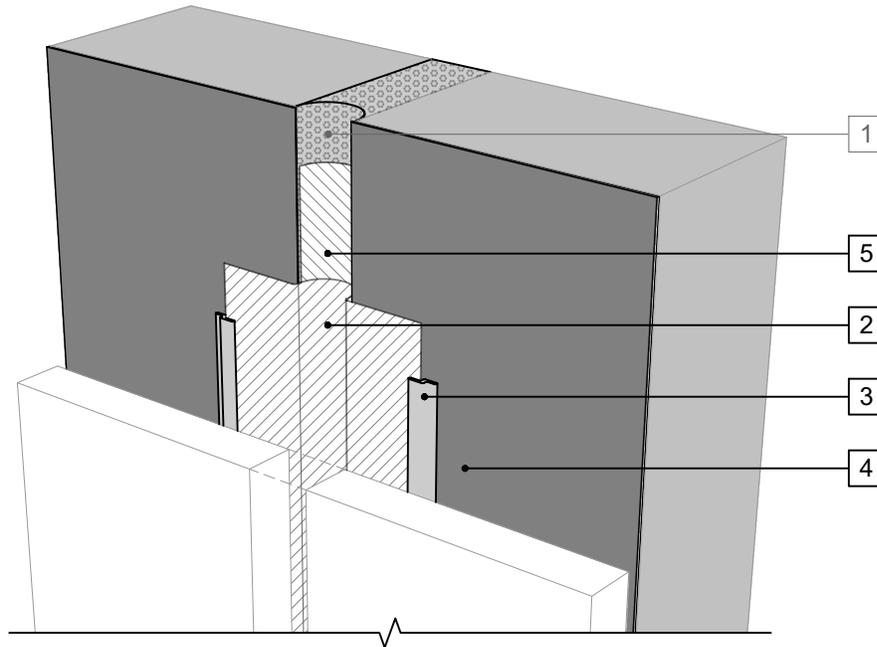
EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

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® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
4. PERM-A-BARRIER® VPL
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 S100
- 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

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.



EXPANSION JOINT DETAIL - MASONRY CLADDING

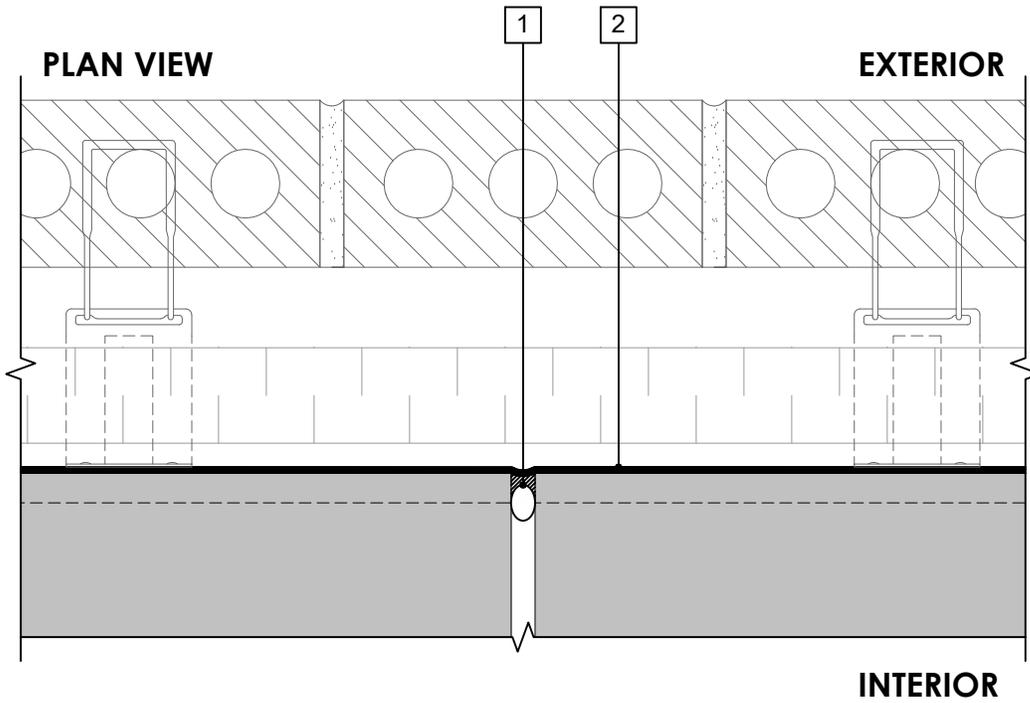
PERM-A-BARRIER® VPL

DRAWING: VPL-008

SCALE: 3" = 1'

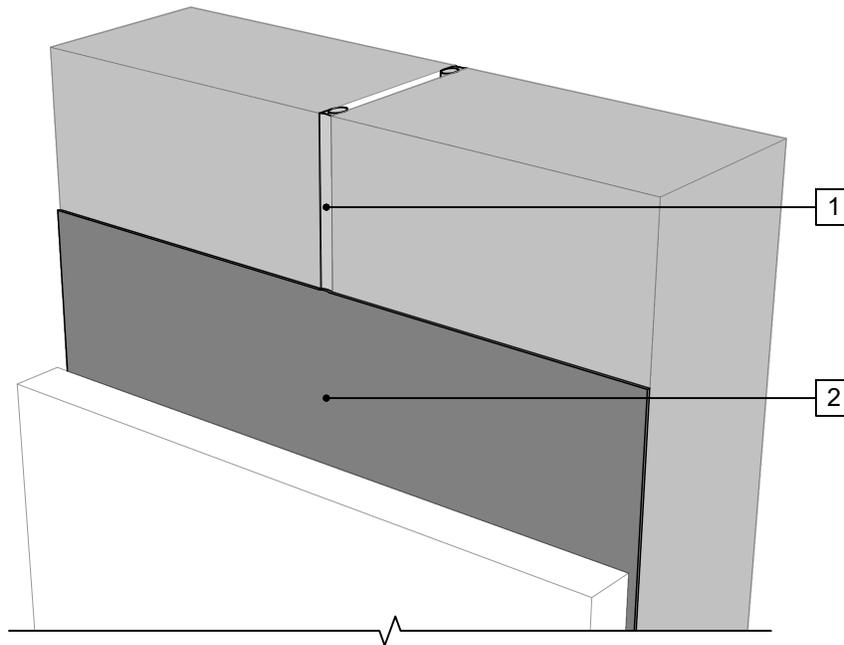
EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. BACKER ROD AND COMPATIBLE SEALANT
2. PERM-A-BARRIER® VPL



PERSPECTIVE VIEW

NOTE

- 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.
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.



CONTROL JOINT DETAIL

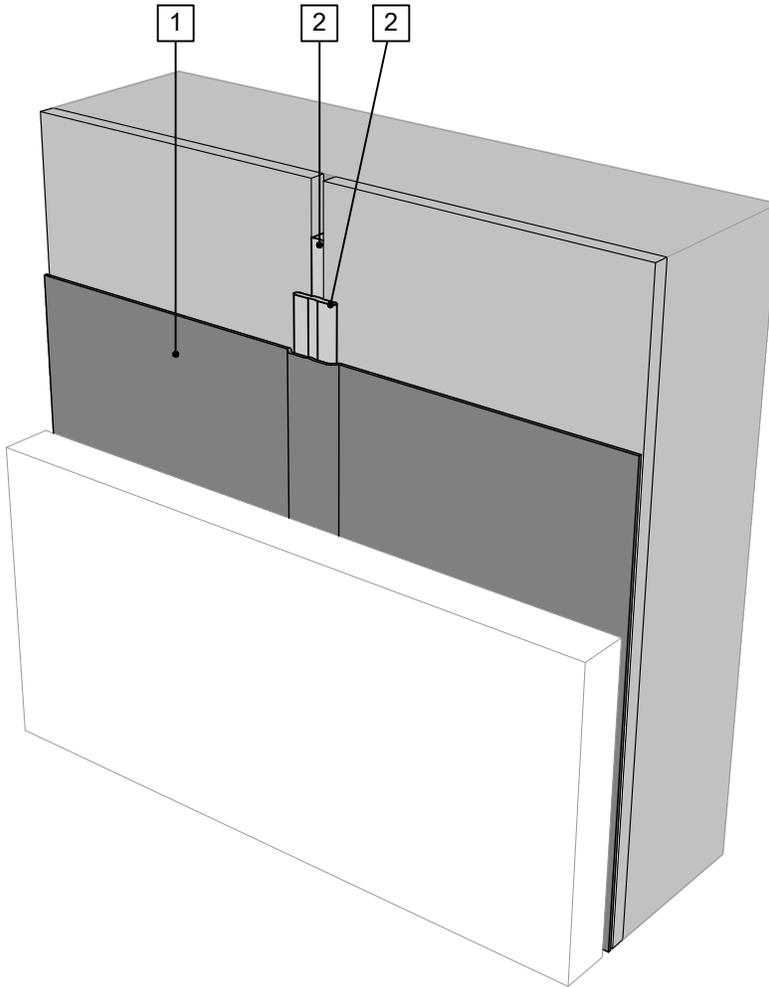
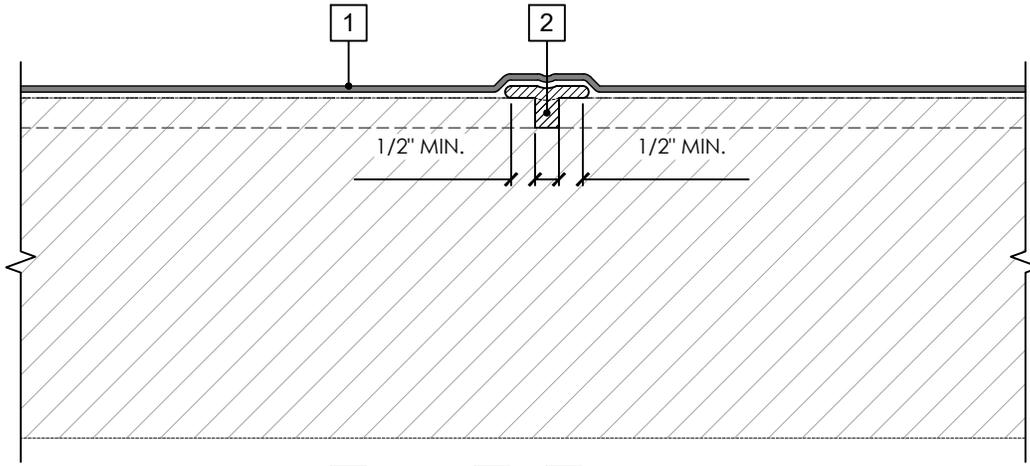
PERM-A-BARRIER® VPL

DRAWING: VPL-009A

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. **PERM-A-BARRIER® VPL**
2. **PERM-A-BARRIER® S100 SEALANT**

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.



SHEATHING JOINT TREATMENT

PERM-A-BARRIER® VPL

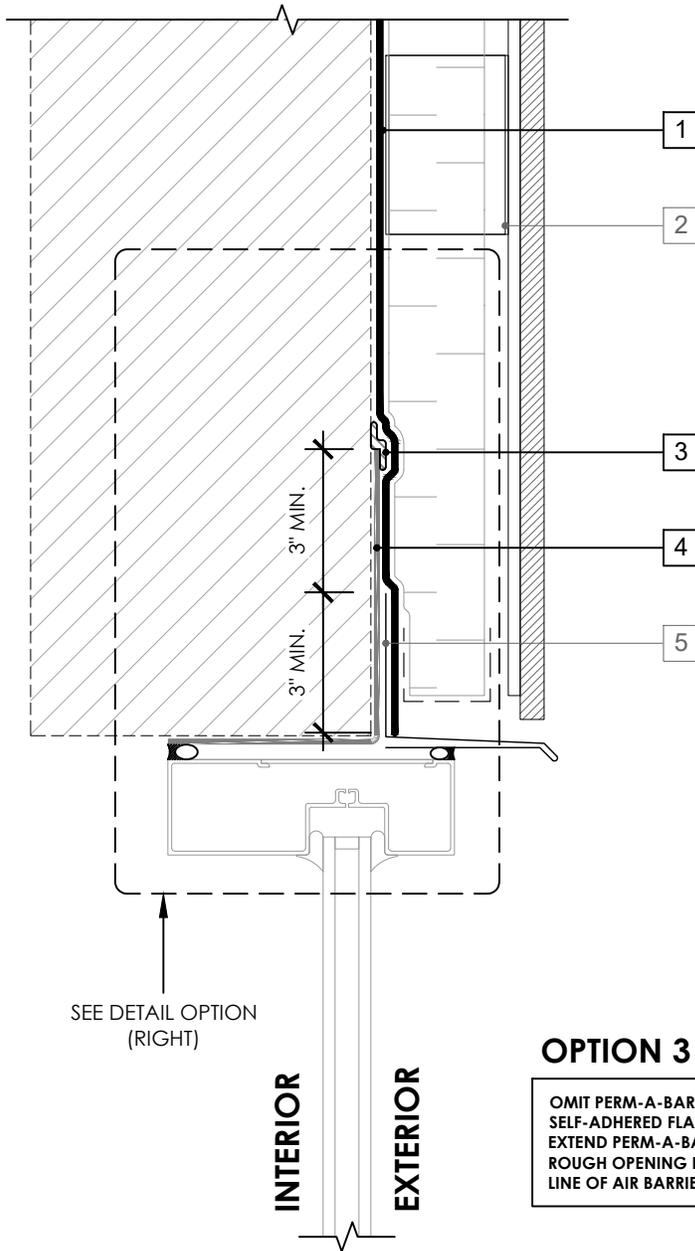
DRAWING: VPL-009B

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

OPTION 1



SEE DETAIL OPTION (RIGHT)

INTERIOR

EXTERIOR

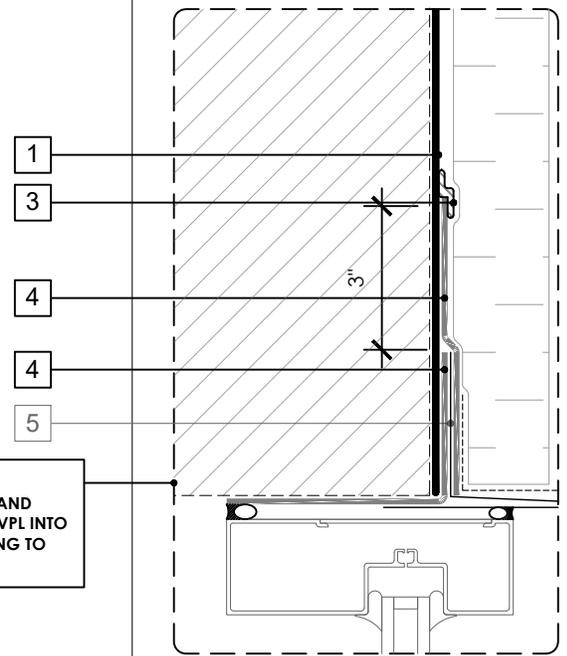
OPTION 3

OMIT PERM-A-BARRIER® SELF-ADHERED FLASHING* AND EXTEND PERM-A-BARRIER® VPL INTO ROUGH OPENING EXTENDING TO LINE OF AIR BARRIER SEAL

LEGEND

1. PERM-A-BARRIER® VPL
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
4. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED
5. SHEET METAL FLASHING PER ARCH

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.
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 HEAD DETAIL - NON-MASONRY CLADDING

PERM-A-BARRIER® VPL

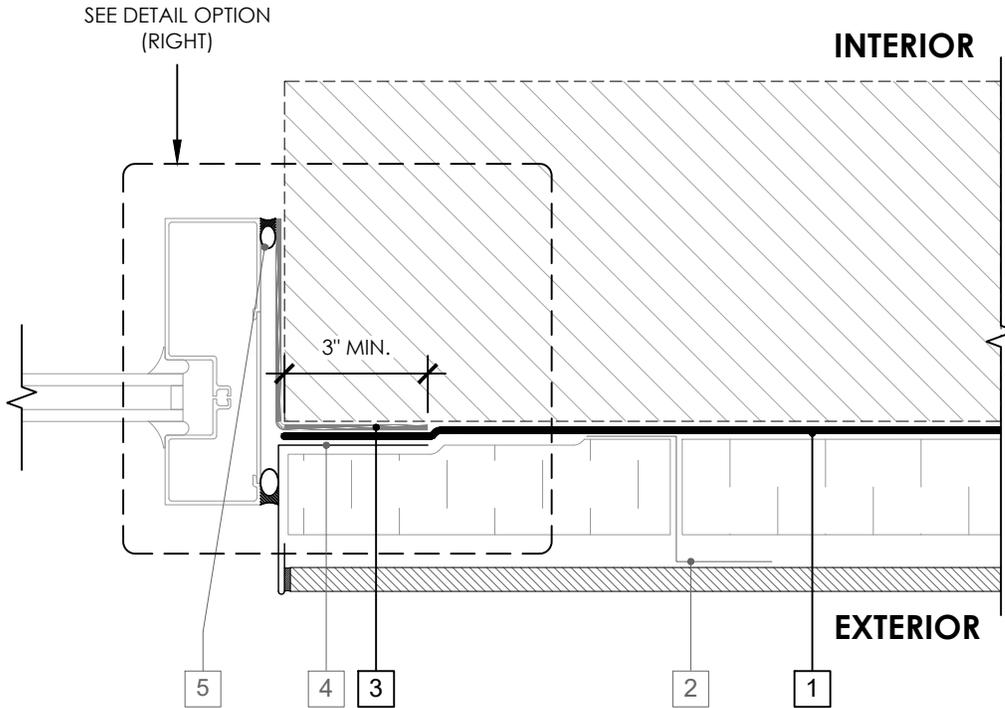
DRAWING: VPL-010

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

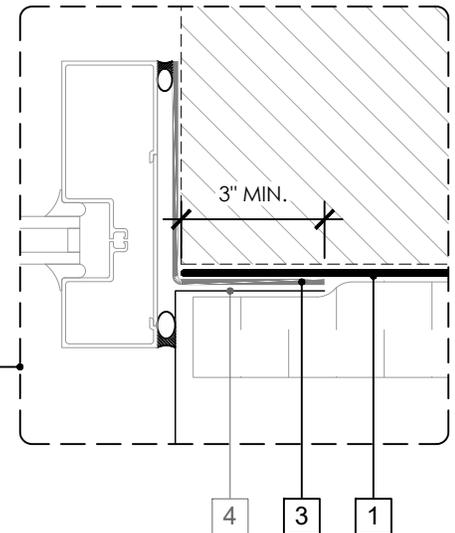
OPTION 1



LEGEND

1. **PERM-A-BARRIER® VPL**
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. **PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED**
4. SHEET METAL FLASHING PER ARCH
5. INTERIOR AIR SEALANT OVER BACKER ROD

OPTION 2



OPTION 3

OMIT PERM-A-BARRIER® SELF-ADHERED FLASHING* AND EXTEND PERM-A-BARRIER® VPL INTO ROUGH OPENING EXTENDING TO LINE OF AIR BARRIER SEAL

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 JAMB DETAIL - NON-MASONRY CLADDING

PERM-A-BARRIER® VPL

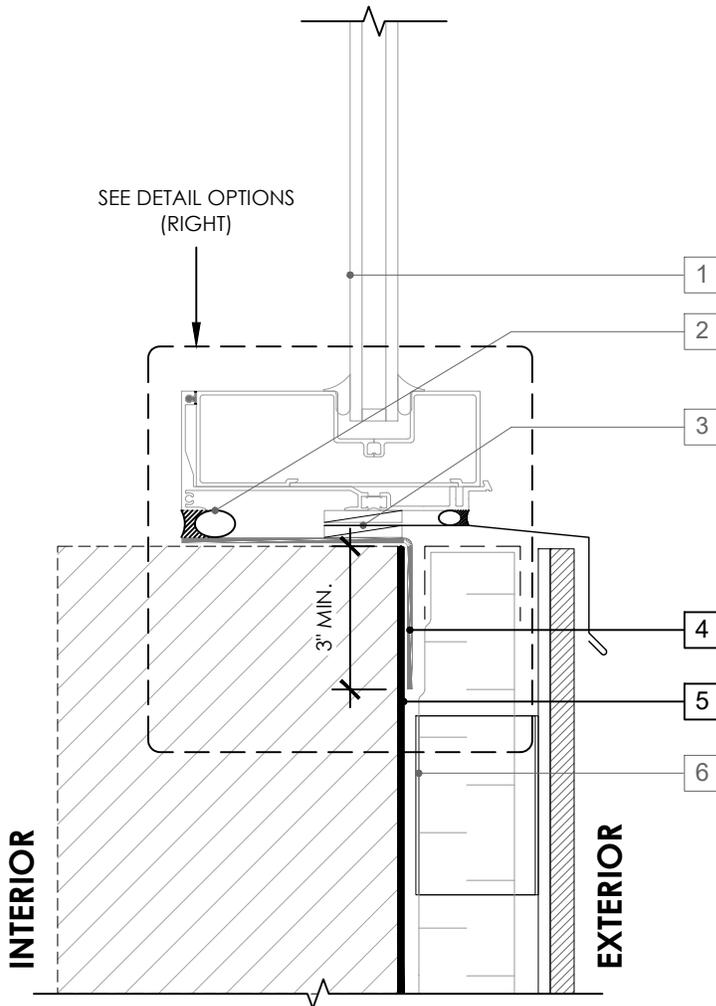
DRAWING: VPL-011

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

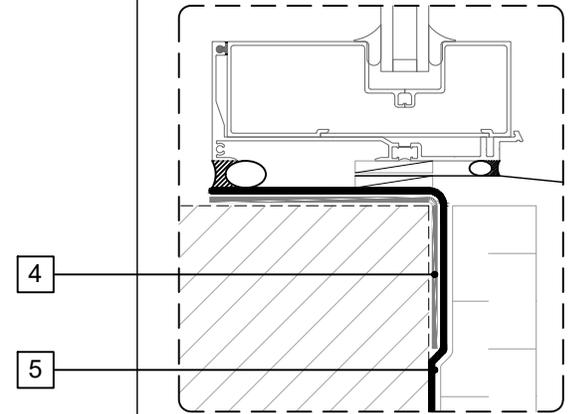
OPTION 1



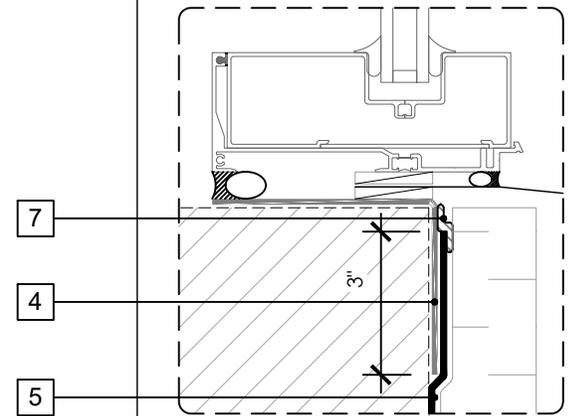
LEGEND

1. NON-FLANGED WINDOW SYSTEM
2. INTERIOR AIR SEALANT OVER BACKER ROD
3. SHEET METAL FLASHING SANDWICHED BETWEEN INTERMITTENT SHIMS
- 4. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED**
- 5. PERM-A-BARRIER® VPL**
6. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
- 7. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD**

OPTION 2



OPTION 3



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 SILL DETAIL - NON-MASONRY CLADDING

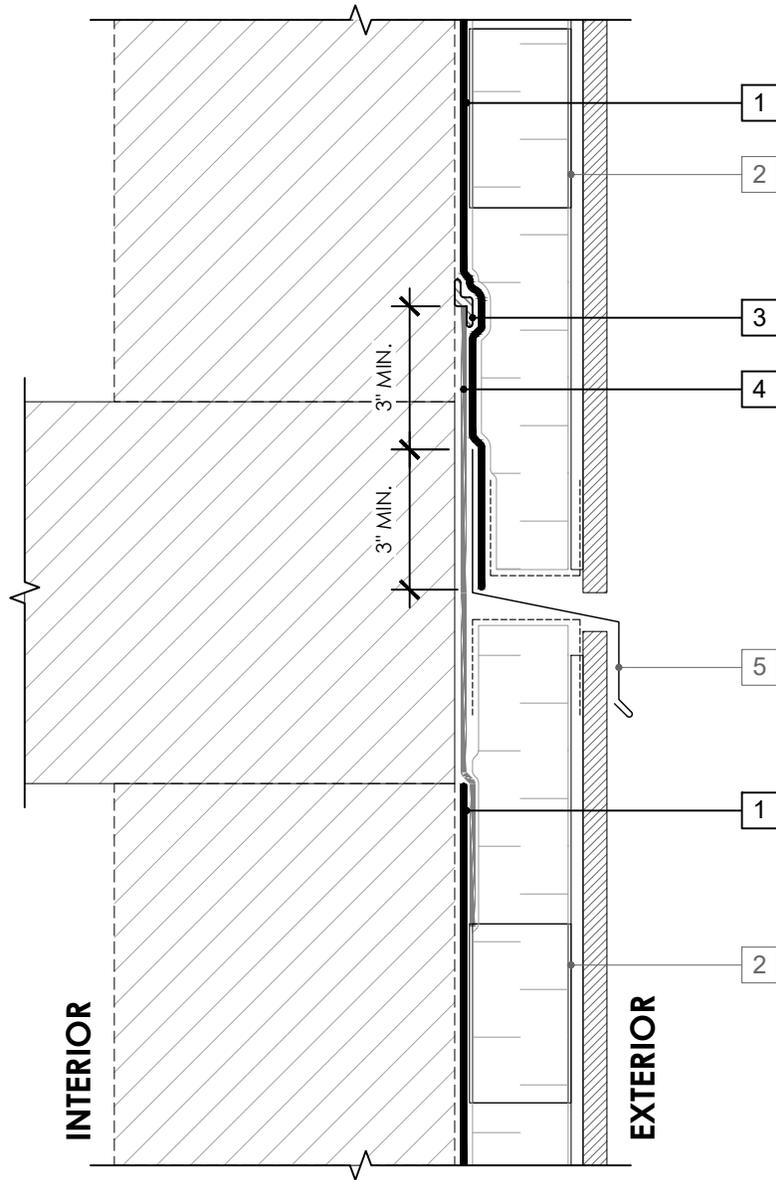
PERM-A-BARRIER® VPL

DRAWING: VPL-012

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. **PERM-A-BARRIER® VPL**
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. **PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD**
4. **PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED**
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.
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.



FLOOR LINE DETAIL - NON-MASONRY CLADDING

PERM-A-BARRIER® VPL

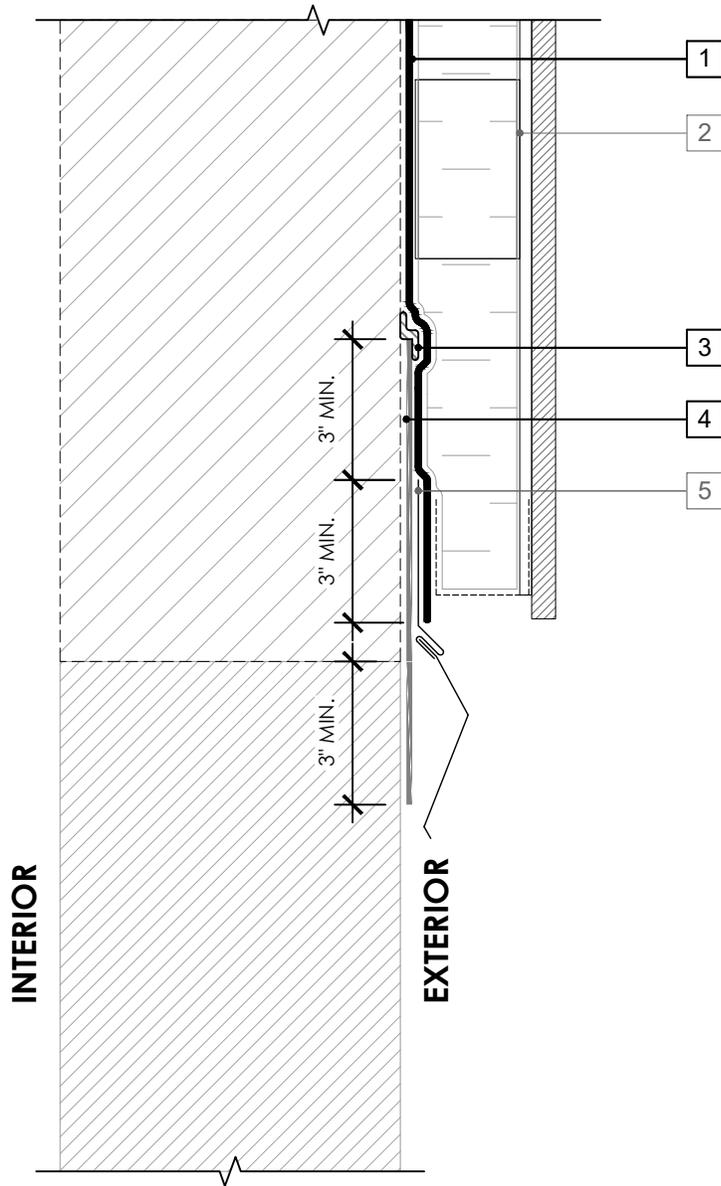
120

DRAWING: VPL-013

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. **PERM-A-BARRIER® VPL**
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. **PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD**
4. **PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED**
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.
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.



CONCRETE STEM WALL DETAIL - NON-MASONRY CLADDING

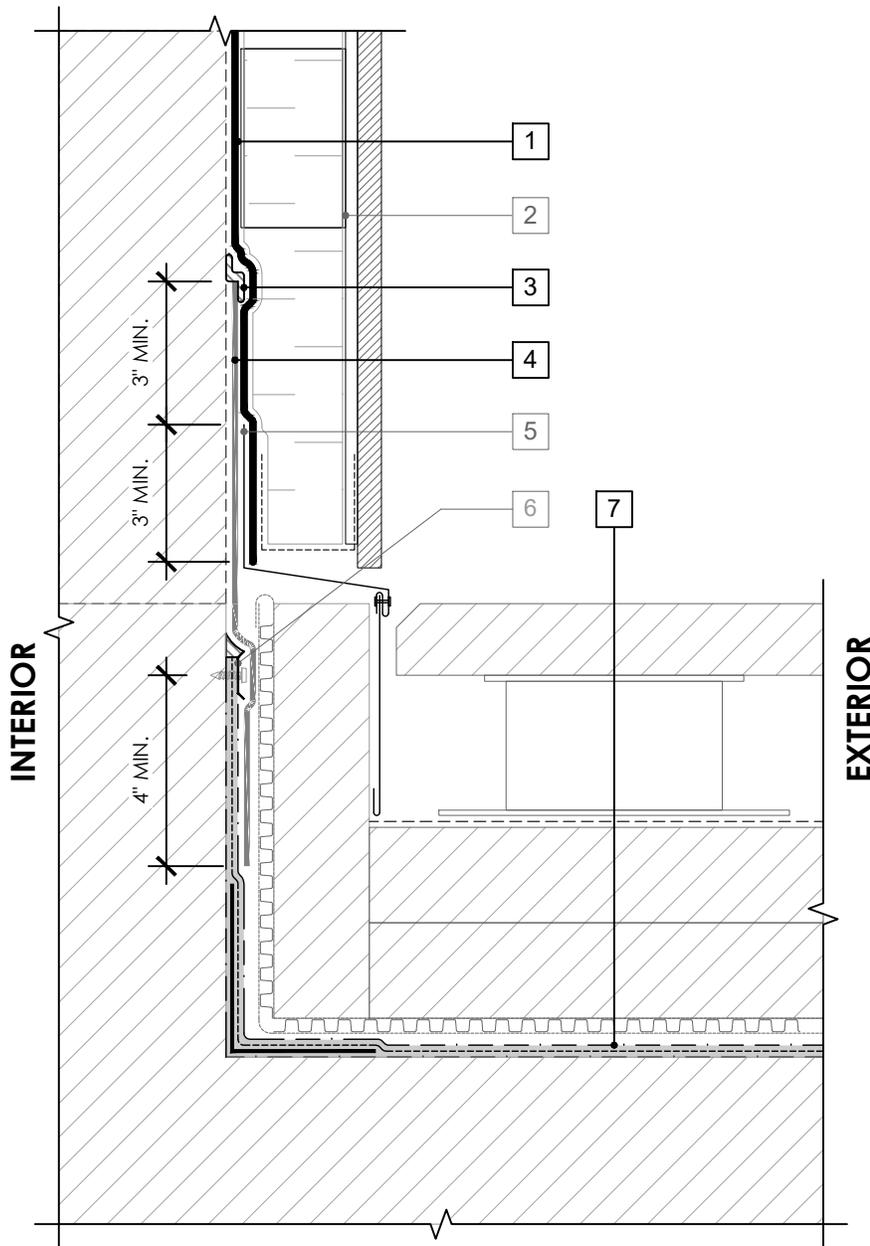
PERM-A-BARRIER® VPL

DRAWING: VPL-014

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. PERM-A-BARRIER® VPL
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
4. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED
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

PERM-A-BARRIER® VPL

DRAWING: VPL-015

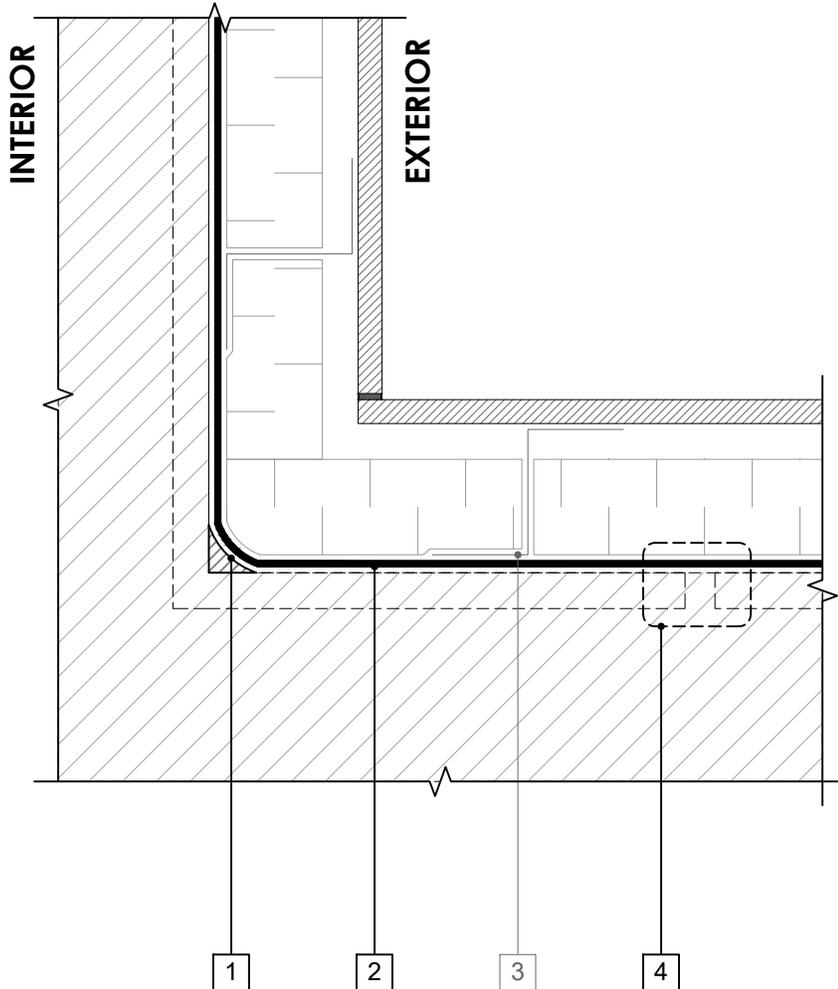
SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

LEGEND

1. **PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED CANT BEAD**
2. **PERM-A-BARRIER® VPL**
3. CLADDING ATTACHMENT, DETAIL PER GCPAT REQUIREMENTS
4. **JOINT TREATMENT PER DRAWING VPL-009B**



NOTE

- REFER TO TL-0002, TECHNICAL LETTER 2 FOR PREPARING SHEATHING PANEL JOINTS

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 DETAIL - NON-MASONRY CLADDING

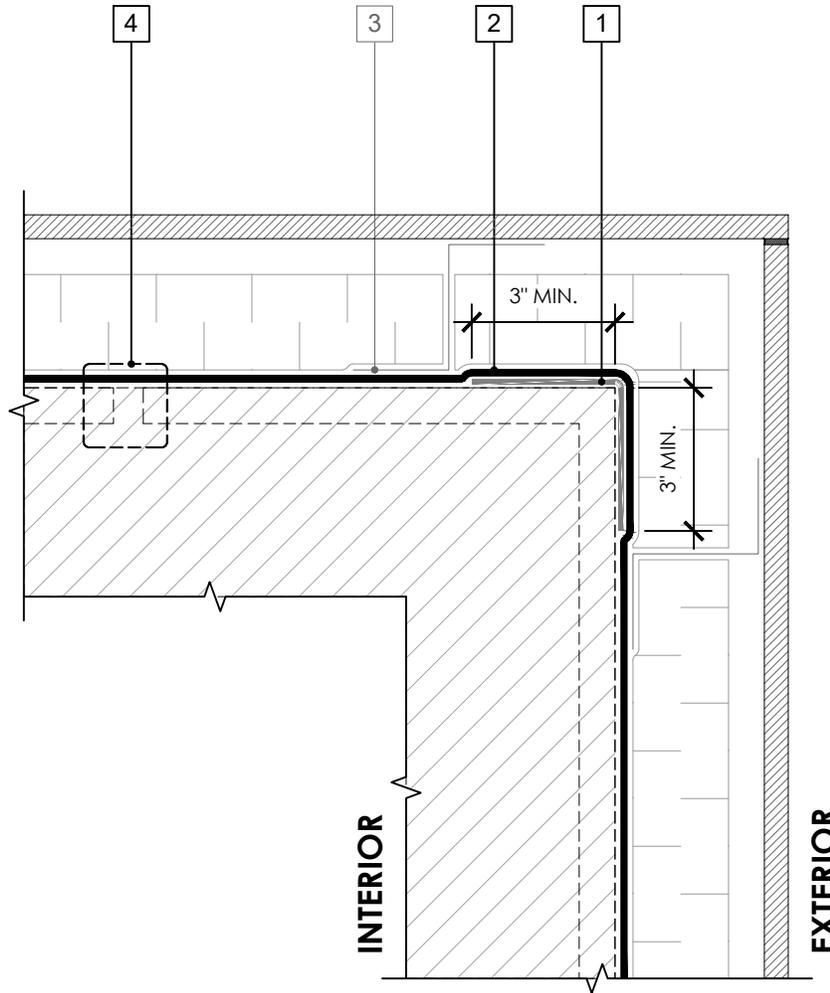
PERM-A-BARRIER® VPL

DRAWING: VPL-016

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. **PERM-A-BARRIER®** DETAIL MEMBRANE, NPS DETAIL MEMBRANE, ALUMINUM FLASHING, OR WALL FLASHING - PRIME SUBSTRATE WHERE REQUIRED
2. **PERM-A-BARRIER®** VPL
3. CLADDING ATTACHMENT, DETAIL PER GCPAT REQUIREMENTS
4. **JOINT TREATMENT PER DRAWING VPL-009B**

NOTE

- REFER TO TL-0002, TECHNICAL LETTER 2 FOR PREPARING SHEATHING PANEL JOINTS
- 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.

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



OUTSIDE CORNER DETAIL - NON-MASONRY CLADDING

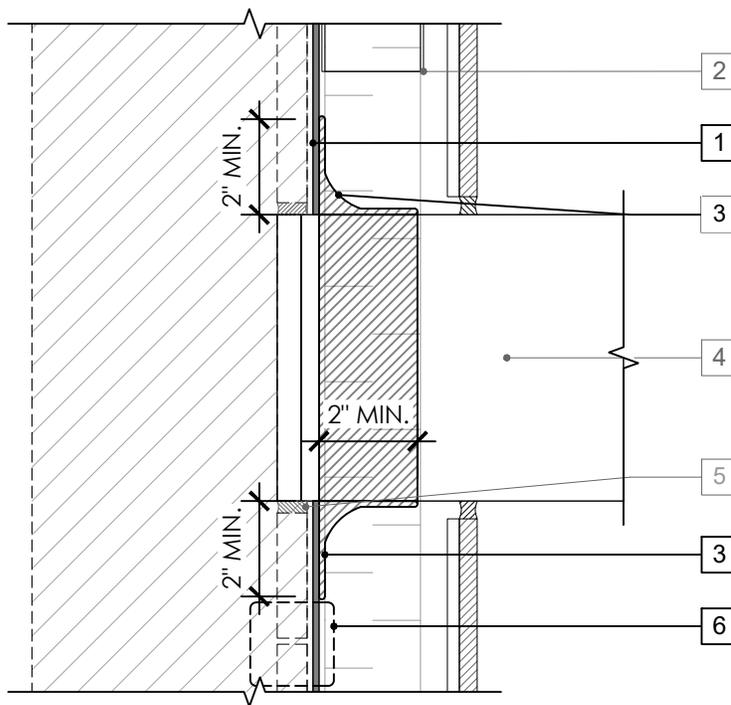
PERM-A-BARRIER® VPL

DRAWING: VPL-017

SCALE: 3" = 1'

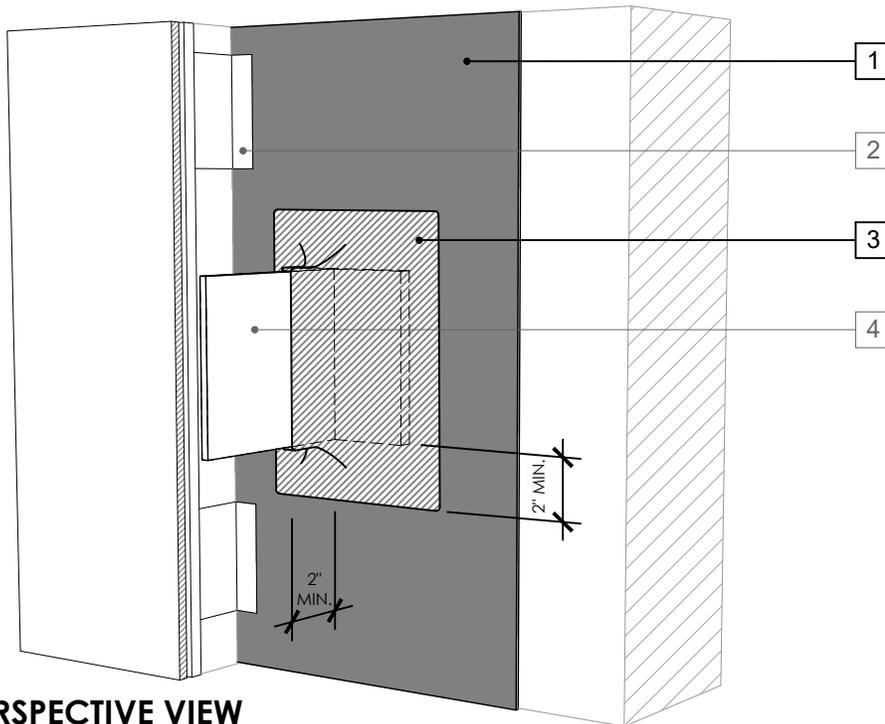
EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW



LEGEND

1. PERM-A-BARRIER® VPL
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. PERM-A-BARRIER® S100 SEALANT, FLASHING AND CANT SEAL
4. KNIFE PLATE PENETRATION
5. GCP APPROVED SEALANT OR NON-SHRINK GROUT PER BACKUP WALL TYPE
6. JOINT TREATMENT PER DETAIL VPL-009B



PERSPECTIVE VIEW

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.



KNIFEPLATE PENETRATION DETAIL - NON-MASONRY CLADDING

PERM-A-BARRIER® VPL

DRAWING: VPL-018

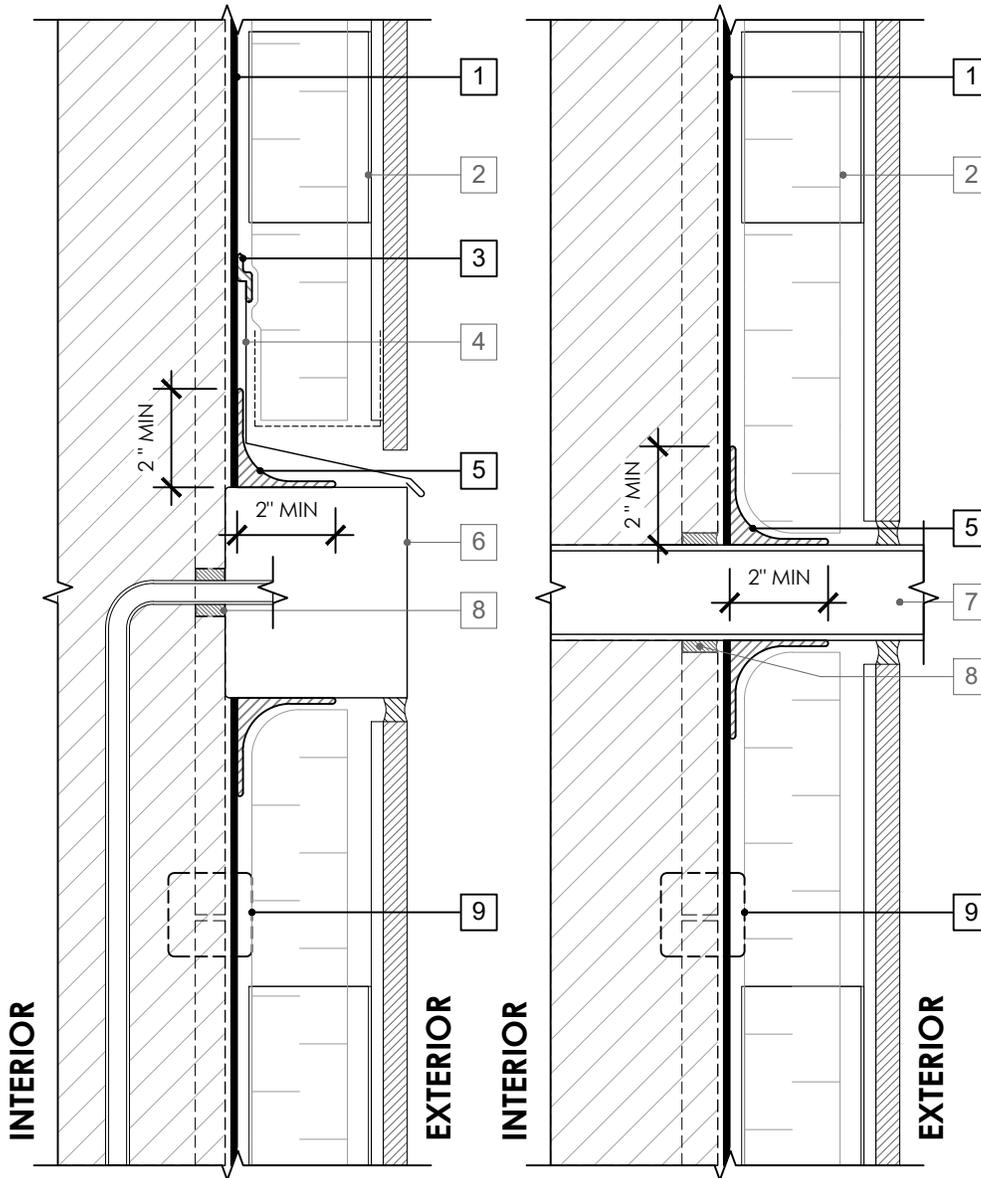
SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

LEGEND

1. PERM-A-BARRIER® VPL
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
4. SHEET METAL FLASHING PER ARCH
5. PERM-A-BARRIER® S100 SEALANT, FLASHING AND CANT SEAL
6. AIR AND WATER TIGHT BOX PENETRATION
7. AIR AND WATER TIGHT PIPE AND PENETRATION
8. GCP APPROVED SEALANT OR NON-SHRINK GROUT PER BACKUP WALL TYPE
9. JOINT TREATMENT PER DETAIL VPL-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.



PENETRATION DETAILS - NON-MASONRY CLADDING

PERM-A-BARRIER® VPL

126

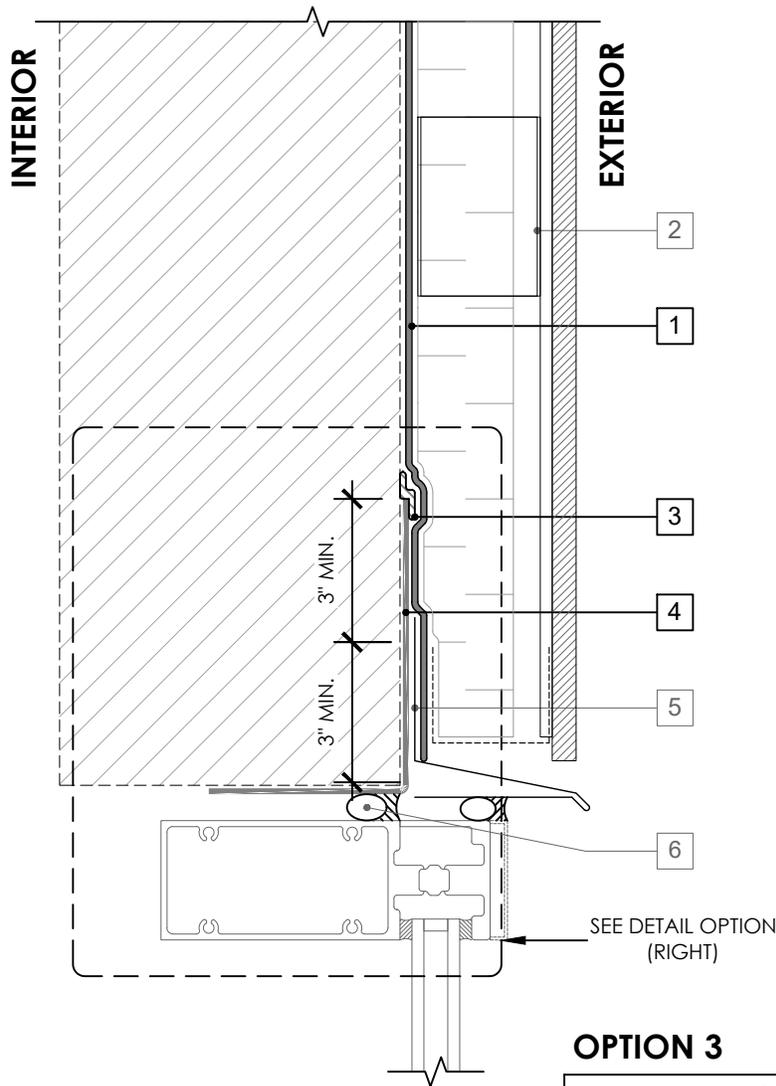
DRAWING: VPL-019

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

OPTION 1



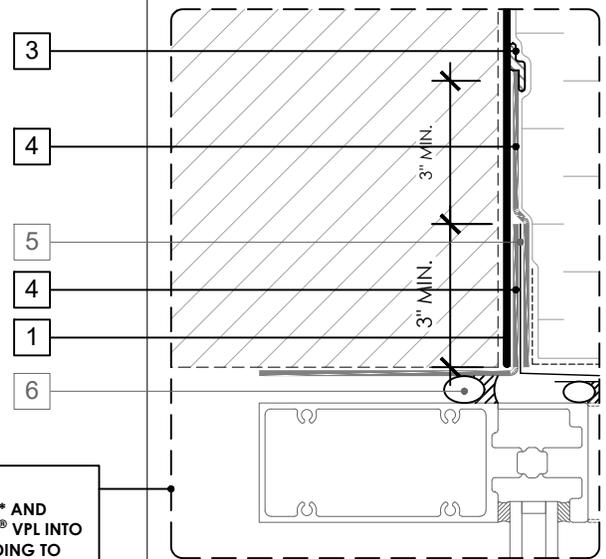
OPTION 3

OMIT PERM-A-BARRIER® SELF-ADHERED FLASHING* AND EXTEND PERM-A-BARRIER® VPL INTO ROUGH OPENING EXTENDING TO LINE OF AIR BARRIER SEAL

LEGEND

1. PERM-A-BARRIER® VPL
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD
4. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED
5. SHEET METAL FLASHING PER ARCH
6. 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.
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 HEAD DETAIL - NON-MASONRY CLADDING

PERM-A-BARRIER® VPL

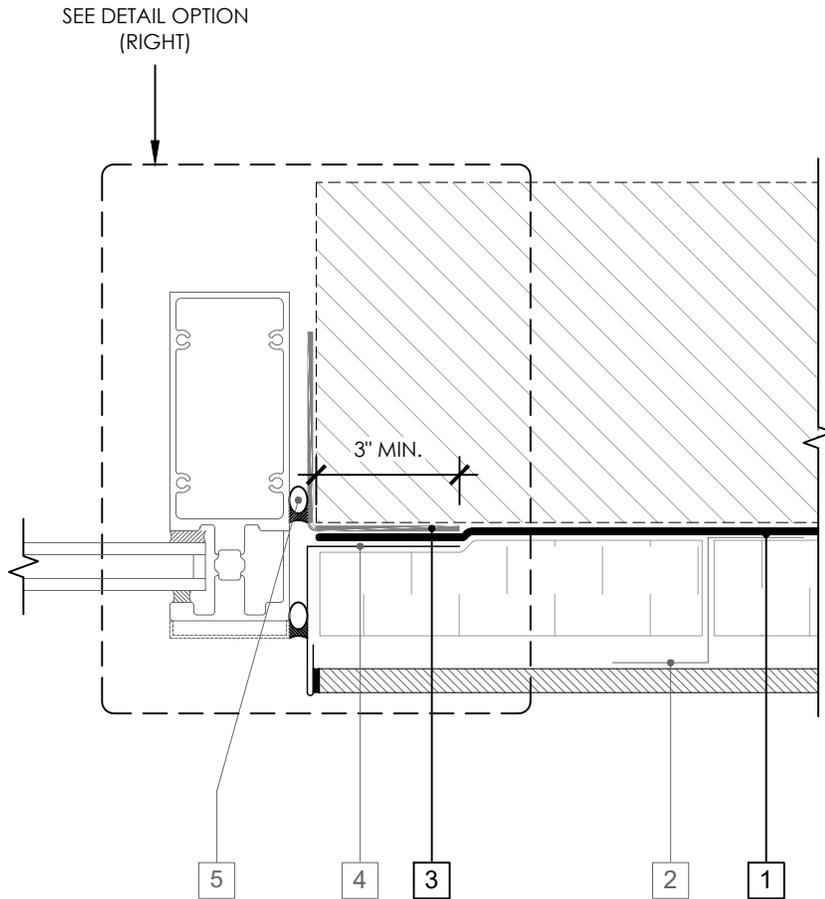
DRAWING: VPL-020

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

OPTION 1



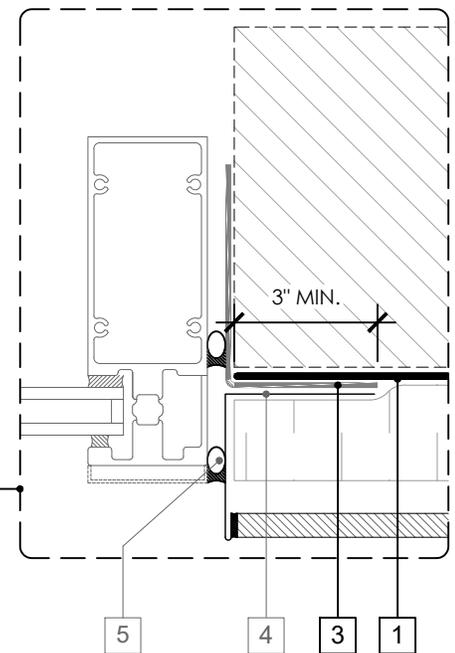
OPTION 3

OMIT PERM-A-BARRIER® SELF-ADHERED FLASHING* AND EXTEND PERM-A-BARRIER® VPL INTO ROUGH OPENING EXTENDING TO LINE OF AIR BARRIER SEAL

LEGEND

1. **PERM-A-BARRIER® VPL**
2. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE
3. **PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED**
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.
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.

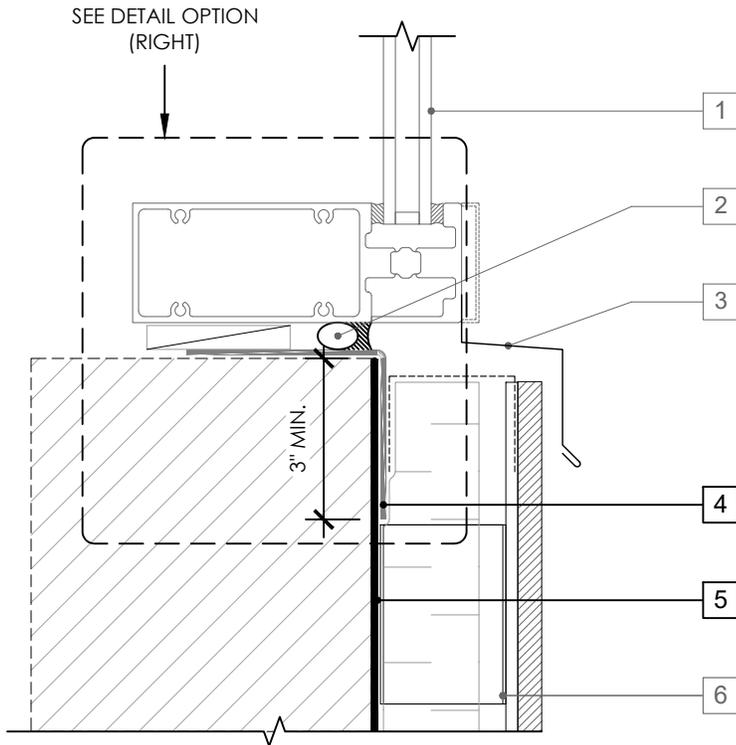


CURTAINWALL JAMB DETAIL - NON-MASONRY CLADDING

PERM-A-BARRIER® VPL

DRAWING:	VPL-021
SCALE:	3" = 1'
EFFECTIVE DATE:	2020.05.21
SUPERCEDES:	NEW

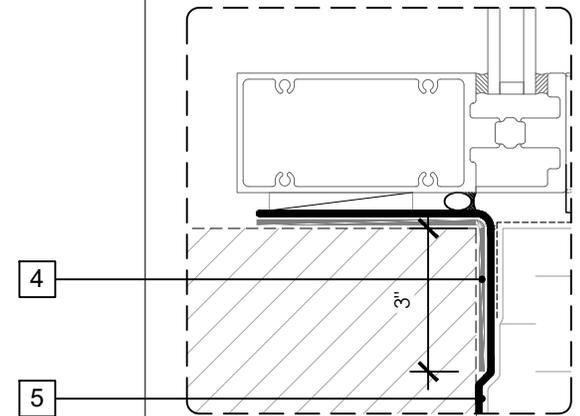
OPTION 1



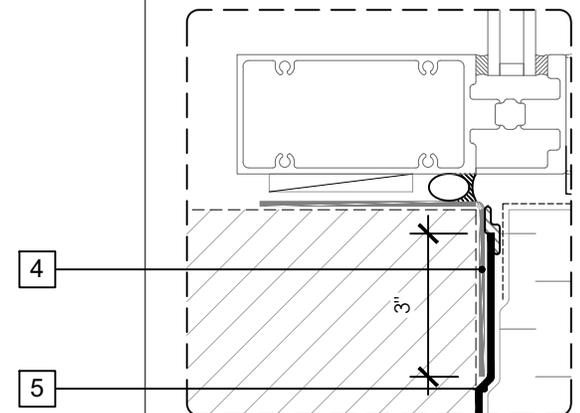
LEGEND

1. CURTAINWALL SILL
2. INTERIOR AIR SEALANT OVER BACKER ROD
3. SHEET METAL FLASHING
- 4. PERM-A-BARRIER® SELF-ADHERED FLASHING* - PRIME SUBSTRATE WHERE REQUIRED**
- 5. PERM-A-BARRIER® VPL**
6. CLADDING ATTACHMENT - CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE

OPTION 2



OPTION 3



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

PERM-A-BARRIER® VPL

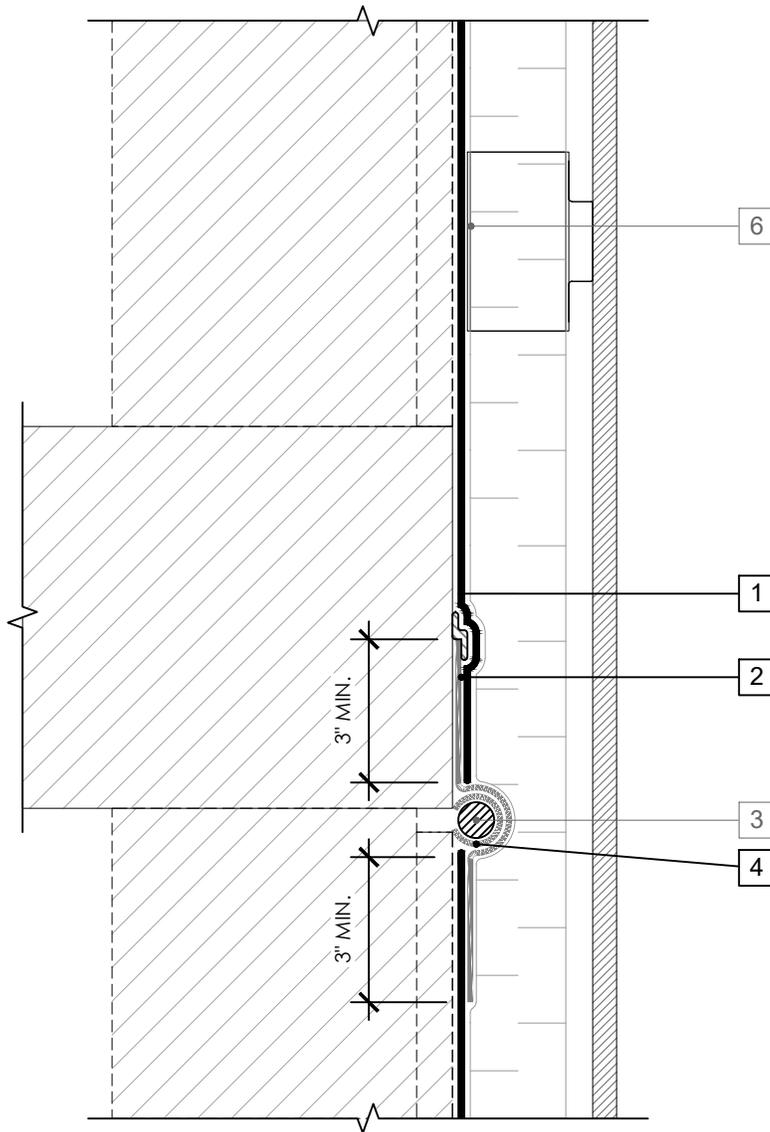
DRAWING: VPL-022

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW

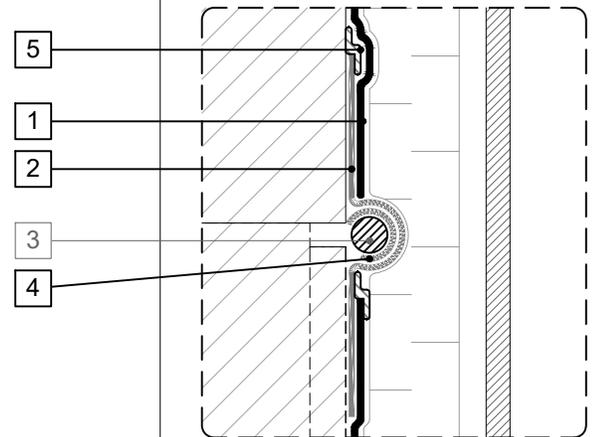
OPTION 1



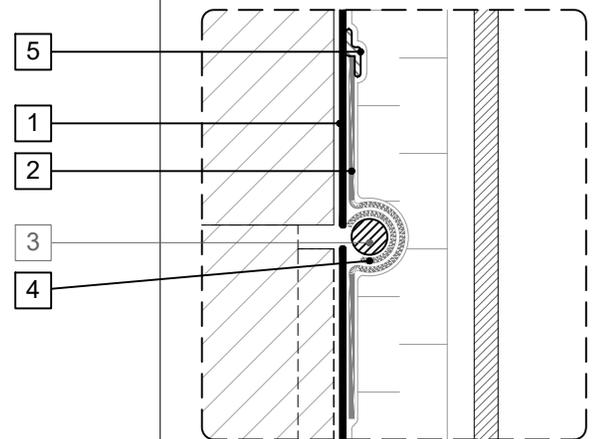
LEGEND

1. **PERM-A-BARRIER® VPL**
2. **PERM-A-BARRIER® SELF-ADHERED FLASHING***
3. MINIMUM 3/4" BACKER ROD
4. **PERM-A-BARRIER DETAIL MEMBRANE INVERTED STRIP SUFFICIENT IN SIZE TO COVER BACKER ROD**
5. **PERM-A-BARRIER® S100 SEALANT - 1-INCH WIDE TROWELED BEAD**
6. CLADDING ATTACHMENT, CONFIRM DETAILING REQUIREMENTS WITH THE GCPAT REPRESENTATIVE

OPTION 2



OPTION 3



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.



DEFLECTION JOINT

PERM-A-BARRIER® VPL

DRAWING: VPL-023

SCALE: 3" = 1'

EFFECTIVE DATE: 2020.05.21

SUPERCEDES: NEW