PERM-A-BARRIER® WALL FLASHING
Self-adhesive, rubberized asphalt/polyethylene through-wall flashing for cavity wall applications

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 occupants

Advantages
• Fully bonded—continuous adhesion to the substrate resists wind loads and prevents water tracking behind the tape
• Waterproof and impermeable to moisture—impermeable to the passage of liquid water and water vapor
• Cross laminated film—provides dimensional stability, high tear strength, puncture and impact resistance
• Cold applied—no flame hazard; self-adhesive overlaps ensure continuity
• Flexible—accommodates minor settlement and shrinkage movement
• Controlled thickness—factory made sheet ensures constant, non-variable site application
• Aggressive, conformable adhesive—creates 100% watertight laps and allows self-sealing around mechanical fasteners
• Unique green color and logo—highly differentiated on the job site from other flashing types and enables easy identification of damage
• Ripcord® Split Release on Demand—faster application in the straight-aways, ease of membrane positioning in detailed areas
• Foldless release paper—fewer edge catches, 180° pull-back, ease of membrane cutting (single cuts) and membrane positioning, quicker one-man installs

System Components
• Perm-A-Barrier Wall Flashing—40 mil (1 mm) total thickness self-adhesive, cold applied tape consisting of 32 mils (0.8 mm) of rubberized asphalt integrally bonded to a 8 mil (0.2 mm) high density, cross laminated polyethylene film. The rolls are interwound with disposable silicone-coated release sheet
• Perm-A-Barrier Primer Plus—water-based vapor permeable primer used to facilitate tenacious adhesion of Perm-A-Barrier self-adhered membranes to the substrate
• Perm-A-Barrier WB Primer—high tack, water-based primer for use with Perm-A-Barrier Wall Flashing on cementitious and exterior gypsum wallboards

Product Advantages
• Fully bonded
• Waterproof and virtually impermeable to moisture
• Cross laminated film
• Cold applied
• Flexible
• Controlled thickness
• Aggressive, conformable adhesive
• Unique green color and logo
• Ripcord Split Release on Demand
• Foldless release paper

Drawings are for illustration purposes only. Please refer to graceconstruction.com for specific application details.
• **Bituthene Primer B2 LVC**—low VOC primer used to prime green concrete or damp surfaces

• **Grace S100 Sealant**—one part neutral curing, ultra low modulus silicone sealant for sealing penetrations, terminations, brick ties and final terminations.

• **Bituthene Mastic Trowel Grade**—rubberized asphalt mastic for sealing around penetrations, terminations, brick ties, etc.

• **Bituthene Liquid Membrane**—two component, trowel grade, asphalt modified urethane for sealing patches, terminations, brick ties, etc.

### Installation

#### Safety

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

#### 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 on temperature and humidity conditions. Refer to Perm-A-Barrier Primer Plus and Perm-A-Barrier WB Primer product data sheet for installation recommendations and Technical Letter 2, *Substrate Preparation for Application of Perm-A-Barrier Products to Glass-Mat Faced Gypsum Sheathing* for priming requirements on specific glass-mat faced sheathing products.

#### Flashing Application

Pre-cut Perm-A-Barrier Wall Flashing to easily handled lengths. Peel release paper from roll to expose rubberized asphalt and carefully position flashing against substrate. Ripcord, a Split Release on Demand feature embedded in the membrane, also makes Perm-A-Barrier Wall Flashing easy to position in detailed areas. Press firmly into place with a steel hand roller or the back of a utility knife as soon as possible, fully adhering the flashing to the substrate to prevent water from migrating under the Perm-A-Barrier Wall Flashing. Form end dams at horizontal flashing terminations to prevent water entry. Overlap adjacent pieces 2 in. (51 mm) and roll overlap with a steel hand roller. Apply a bead of Grace S100 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 Grace S100 or Bituthene Liquid Membrane along all laps, seams, top edges, cuts, penetrations and as shown in Grace 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 ½ 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 Grace S100 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 Wall Flashing must not be double stacked on the job site. Provide cover on top and all sides, allowing for adequate ventilation. Store wall flashing 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. At point of use, store only as much material as is required for each day’s work.

#### 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 Grace S100 Sealant.
DISCONTINUOUS FLASHING
At masonry opening head & sill flashing and at other flashing terminations, cut and lap flashing to provide end dams. Seal top edge & end dam lap seam with a bead of Bituthene Mastic or Grace S100 Sealant.

CONTINUOUS FLASHING
At inside and outside corners, fold and lap seams. Seal top edge & corner lap seams with a bead of Bituthene Mastic or Grace S100 Sealant.

Through-wall Flashing Details

Perm-A-Barrier Wall Flashing

Sealant

Perm-A-Barrier Wall Flashing

2 in. (51 mm) clear airspace

Cavity insulation

Bituthene Mastic

Perm-A-Barrier Wall Flashing

Drainage fill usage and type optional

Dry-Block in CMU & mortar

See Details "A" & "B" on Grace Dwg CW-8

Weeps at 16 in. (406 mm) O.C.

Shelf angle

Compressible filler

Optional clay brick outer wythe

Stone coping set in mortar

Sealant

Perm-A-Barrier Wall Flashing

Insulation

Joint reinforcement

Roof membrane & flashing

Weeps at 16 in. (406 mm) O.C.

Finished grade

See alternate Base of Wall Details—Grace Drawing SW-3

Parapet Detail

Perm-A-Barrier Wall Flashing with end dams

Sloped sill set in mortar

Drip

Sealant

Weep

2 in. (51 mm) clear airspace

Cavity insulation

Joint reinforcement & veneer anchor

Dry-Block in CMU & mortar

Base of Wall Detail

8 in. (203 mm) nominal

[10 in. & 12 in (254 mm & 305 mm) similar]

Joint reinforcement

Perm-A-Barrier Wall Flashing with end dams

Insulation

Dry-Block in CMU & mortar

Weeps at 16 in. (406 mm) O.C.

Precast lintel

Precast lintel alternate

Sill Detail

Perm-A-Barrier Wall Flashing

Stainless steel drip with hemmed edge

2 in. (51 mm) Min.

Sealant

Steel lintel

30°

Stainless steel drip edge detail

Masonry Opening Head Flashing

B. Steel/precast lintel alternate

C. Stainless steel drip edge detail
Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Green with repeated logo imprint</td>
<td></td>
</tr>
<tr>
<td>Thickness</td>
<td>40 mil (1 mm)</td>
<td>ASTM D3767, method A</td>
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<tr>
<td>Low temperature flexibility</td>
<td>Unaffected at -45°F (-43°C)</td>
<td>ASTM D1970</td>
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<tr>
<td>Tensile strength, membrane</td>
<td>1200 psi (8300 kPa) minimum</td>
<td>ASTM D412, Die C modified</td>
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<tr>
<td>Elongation, ultimate failure of rubberized asphalt</td>
<td>200% minimum</td>
<td>ASTM D412</td>
</tr>
<tr>
<td>Lap adhesion at minimum application temperature</td>
<td>60 lbs/ft (875 N/m) width</td>
<td>ASTM D1876 modified</td>
</tr>
<tr>
<td>Adhesion to concrete at minimum application temperature</td>
<td>60 lbs/ft (875 N/m) width</td>
<td>ASTM D903</td>
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<tr>
<td>Puncture resistance, membrane</td>
<td>40 lbs (178 N) minimum MD</td>
<td>ASTM D781</td>
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<tr>
<td></td>
<td>80 lbs (356 N) minimum MD</td>
<td>ASTM E154</td>
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<tr>
<td>Tear resistance, initiation</td>
<td>13 lbs (58 N) minimum MD</td>
<td>ASTM D1004</td>
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<tr>
<td>Tear resistance, propagation</td>
<td>9 lbs (40 N) minimum MD</td>
<td>ASTM D1938</td>
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<tr>
<td>Permeance</td>
<td>0.05 perms (2.9 ng/m²/s/Pa) maximum</td>
<td>ASTM E96, method B</td>
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<tr>
<td>Water absorption</td>
<td>0.1% maximum</td>
<td>ASTM D570</td>
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Supply

<table>
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<tr>
<th>Product</th>
<th>Unit of Sale</th>
<th>Approximate Coverage</th>
<th>Weight</th>
<th>Palletization</th>
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<tbody>
<tr>
<td>Perm-A-Barrier Wall Flashing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>—12 in. (305 mm)</td>
<td>3 rolls</td>
<td>75 linear ft per roll</td>
<td>22.5 lbs/roll</td>
<td>25 cartons (75 rolls) per pallet</td>
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<tr>
<td>—18 in. (457 mm)</td>
<td>2 rolls</td>
<td>75 linear ft per roll</td>
<td>33.7 lbs/roll</td>
<td>25 cartons (50 rolls) per pallet</td>
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<tr>
<td>—24 in. (610 mm)</td>
<td>1 roll</td>
<td>75 linear ft per roll</td>
<td>49.7 lbs/roll</td>
<td>35 cartons (35 rolls) per pallet</td>
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<tr>
<td>—36 in. (914 mm)</td>
<td>1 roll</td>
<td>75 linear ft per roll</td>
<td>67.7 lbs/roll</td>
<td>25 cartons (25 rolls) per pallet</td>
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<tr>
<td>Bituthene Mastic—5 gal pail</td>
<td>1 pail</td>
<td>approx. 120 ft² at 60 mils</td>
<td>54 lbs/roll</td>
<td>36 pails per pallet</td>
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<tr>
<td>Bituthene Mastic—30 oz tube</td>
<td>12 tubes</td>
<td>approx. 30 linear ft x ¼ in. bead</td>
<td>32 lbs/carton</td>
<td>72 cartons (864 tubes) per pallet</td>
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<tr>
<td>Grace S100 Sealant—29 oz cartridge</td>
<td>1 Cartridge</td>
<td>approx. 30 linear ft x ¼ in. bead</td>
<td>29 oz cartridge</td>
<td>10 cartridges/ carton</td>
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<tr>
<td>Bituthene Liquid Membrane—1.5 gal pail</td>
<td>1 pail</td>
<td>approx. 200 linear ft/gal @ 1” wide x 90 mils</td>
<td>16 lbs/pail</td>
<td>100 pails per pallet</td>
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<tr>
<td>Bituthene Liquid Membrane—4 gal pail</td>
<td>1 pail</td>
<td>approx. 200 linear ft/gal @ 1” wide x 90 mils</td>
<td>44 lbs/pail</td>
<td>24 pails per pallet</td>
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<tr>
<td>Perm-A-Barrier Primer Plus—5 gal pail</td>
<td>1 pail</td>
<td>450–500 ft²/gal (11–12 m²/L)</td>
<td>43 lbs/pail</td>
<td>36 pails per pallet</td>
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<tr>
<td>Perm-A-Barrier WB Primer—5 gal pail</td>
<td>1 pail</td>
<td>250–350 ft²/gal (6–8 m²/L)</td>
<td>45 lbs/pail</td>
<td>32 pails per pallet</td>
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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 Services
Support is provided by full-time, technically trained Grace Construction Products representatives and technical service personnel, backed by a central research and development staff.

www.graceconstruction.com

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

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