BITUTHENE® 8000

Advanced, self-adhesive membrane with unique HDPE composite film that provides superior physical properties for water, vapor and gas proof application in sub-structures.

Product Description

GCP BITUTHENE® 8000 membrane combines the proven BITUTHENE® adhesive technology with a unique composite, grey-colored carrier film to provide superior performance, easier installation and protection from methane gas.

Advantages

- **Water and vapor proof** - protects basements from ground waters and gasses
- **Gas resistance** - BITUTHENE® 8000 membrane will restrict the ingress of Methane, Radon, Benzene, Toluene, Gasoline & other VOCs Trichloroethylene & Tetrachloroethylene (TCE/PCE) into buildings from landfill and naturally occurring sources, satisfying the performance criteria for a gas-resistant membrane
- **Chemically resistant** - provides effective external protection against most aggressive soils, contaminated ground water and hydrocarbons in suspension
- **Superior performance** - 70 m hydrostatic pressure resistance with ultra-low moisture transmission rate
- **Durability** –
  - **Unique composite film** - engineered for strength, flexibility, gas barrier and a smooth finish
  - This unique composite HDPE film makes BITUTHENE® 8000 extremely tough & durable.
System Components

Ancillary Components

- BITUTHENE® primer adhesive B2 LVC – low VOC, solvent-based primer to apply BITUTHENE® 8000 membrane to concrete surfaces
- BITUTHENE® liquid membrane – two component, elastomeric, liquid applied detailing compound
- BITUTHENE® mastic – rubberized asphalt-based mastic
- PREPRUFE® Detail Tape – double-sided, self-adhesive tape
- HYDRODUCT® drainage sheet - high impact and creep resistant geo-composite and protection layer

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.
- BITUTHENE® membranes are not intended for any other use. Contact GCP Technical Services where any other use is anticipated or intended.
- BITUTHENE® membranes are designed where in-service temperatures will not exceed 130 °F (54°C).
- Do not use BITUTHENE® mastic to terminate BITUTHENE® membranes to PREPRUFE® pre-applied waterproofing systems. Terminations to PREPRUFE® membranes should only be done with BITUTHENE® liquid membrane.
- Do not apply BITUTHENE® Membranes over insulation or lightweight insulating concrete

Special Note: When this information is printed from the gcpat.com website, a footer appearing on this document will restrict its applicability to the United States. Note that the information and references in this document is hereby expanded and applied to North, Central and South America.

Safety 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.
Storage

- All BITUTHENE® Membranes should be stored upright
- Observe one-year shelf life and use on a first in, first out basis.
- Store in dry conditions between 40°F (4.5°C) – 90°F (32°C).
- Store off ground, under tarps, or otherwise protected from rain and ground moisture.
- See Technical Letter #TL-0030 Shelf Life/Storage and Handling of GCP Waterproofing.

Installation

Technical Support, Details and Technical Letters

The most up to date detail drawings and technical letters are available at gcpat.com. Documents in hardcopy as well as information found on websites other than 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 BITUTHENE® 8000 membrane. For technical assistance with detailing and problem solving please call toll-free at (866) 333-3SBM (3726).

Temperature

- Apply BITUTHENE® 8000 Membrane only in dry weather and when air and surface temperatures are above 25°F (-4°C).
- Apply BITUTHENE® adhesive primer B2 LVC in dry weather above 25°F (-4°C). (See separate product information sheet.)

Surface Preparation

Surfaces must be structurally sound and free of voids, spalled areas, loose aggregate and sharp protrusions. Remove contaminants such as grease, oil and wax from exposed surfaces. Remove dust, dirt, loose stone and debris. Concrete must be properly cured (minimum 7-days for normal structural concrete and 14-days for lightweight structural concrete). Certain conditions may require longer dry times, such as unusually wet weather or late removal of forms. On vertical applications BITUTHENE® Adhesive Primer B2 LVC may be used to allow priming and installation of membrane on damp surfaces or green concrete. Priming may begin in this case as soon as the concrete will maintain structural integrity. Use form release agents which will not transfer to the concrete. Remove forms as soon as possible from below horizontal slabs to prevent entrapment of excess moisture. Excess moisture may lead to blistering of the membrane. Cure concrete with clear, resin-based curing compounds which do not contain oil, wax or pigment. See Technical Letter #TL-0005 Curing Compounds and Form Release Agents. Except with BITUTHENE® Adhesive Primer B2 LVC, allow concrete to thoroughly dry following rain. Do not apply any products to frozen concrete.

Repair defects such as spalled or poorly consolidated areas. Remove sharp protrusions and form match lines. For rough or uneven deck surfaces use BITUTHENE® Deck Prep as a repair and leveling agent. See Above Grade Waterproofing BITUTHENE® Deck Prep product information sheet for details. On masonry surfaces, apply a parging coat to rough concrete block and brick walls or trowel cut mortar joints flush to the face of the concrete blocks.
Priming

- Apply BITUTHENE® adhesive primer B2 LVC by a lamb’s wool roller at a coverage rate of 325–425 ft²/gal (7.5–10.0 m²/L). Allow primer to dry one hour or until tack-free.
- Dry time may be longer in cold temperatures. Re-prime areas if contaminated by dust. If the work area is dusty, apply membrane as soon as the primer is dry. In general, priming should be limited to what can be covered within 24-hours.
- Do not apply any primer onto BITUTHENE® membrane.

BITUTHENE® 8000 membrane Installation

Apply membrane in lengths up to 8 ft (2.5 m). Overlap all seams at least 2 in. (50 mm). On higher walls apply membrane in two or more sections with the upper overlapping the lower by at least 2 in. (50 mm). Roll all membrane with a hand roller.

Terminate the membrane at grade level. Press the membrane firmly to the wall with the butt end of a hardwood tool such as a hammer handle or secure into a reglet. Failure to use heavy pressure at terminations can result in a poor seal. All top of wall terminations must be sealed with BITUTHENE® Liquid Membrane or BITUTHENE® Mastic. A termination bar may be used to ensure a tight seal. At the end of each working day, if the wall has been only partially covered, apply a maximum 1/4 in. bead of BITUTHENE® Mastic tooled thin or BITUTHENE® Liquid Membrane along the exposed edges of the membrane at its temporary terminations to prevent vertical drainage of precipitation undermining the membrane adhesion. Terminate the membrane at the base of the wall if the bottom of the interior floor slab is at least 6 in. (150 mm) above the footing.

Otherwise, use appropriate inside corner detail where the wall and footing meet. A 1/8 in. (3 mm) x 1 in. (25 mm) aluminum termination bar aligned with the top of the membrane is recommended for terminations on CMU, in earth covered decks, and in earth beamed applications where soil cannot be fully compacted. See Technical Letter #TL-0026 BITUTHENE® Membrane Terminations for additional information.

Repairs, Protection & Drainage

Patch tears and inadequately lapped seams with the same membrane as used on the surrounding surface. Clean the in place membrane with a damp cloth and completely dry. Slit fish mouths and repair with a patch extending 6 in. (150 mm) in all directions from the slit and seal edges of the patch with BITUTHENE® Liquid Membrane. Inspect the membrane thoroughly before covering and make all repairs prior to testing, covering or backfilling.

- Protect BITUTHENE® membranes immediately after application to avoid damage from other trades, construction materials or backfill, using HYDRODUCT® drainage composite boards. See HYDRODUCT® product data sheet at gcpat.com.

Drainage

HYDRODUCT® drainage composites are recommended for both active drainage and protection of the membrane.
Insulation

Always apply BITUTHENE® Membrane directly to primed or conditioned structural substrates. Insulation, if used, must be applied over the membrane. Do not apply BITUTHENE® Membranes over insulation or lightweight insulating concrete.

Supply

<table>
<thead>
<tr>
<th>BITUTHENE® BC00</th>
<th>3.28ft X 65.6ft Roll (215 sft) (1 m x 20 m, 20 sq m Roll)</th>
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<tbody>
<tr>
<td></td>
<td>Weight 36kg</td>
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Physical Properties

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TYPICAL VALUE</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>light grey</td>
<td></td>
</tr>
<tr>
<td>Application Temp</td>
<td>&gt;25°F (-5°C)</td>
<td></td>
</tr>
<tr>
<td>Thickness</td>
<td>60 mils (1.5 mm)</td>
<td>ASTM D3767 - method A</td>
</tr>
<tr>
<td>Low temperature flexibility, 180° bend over 1 in. (25 mm) mandrel at -25°F (-32°C)</td>
<td>Unaffected/Pass</td>
<td>ASTM D1970</td>
</tr>
<tr>
<td>Tensile strength, film</td>
<td>5,500 psi (38 MPa)</td>
<td>ASTM D412</td>
</tr>
<tr>
<td>Elongation, ultimate failure of rubberized asphalt</td>
<td>300%</td>
<td>ASTM D412¹</td>
</tr>
<tr>
<td>Crack cycling at -25°F (-32°C), (1/8 inch) 3.2mm</td>
<td>Unaffected/Pass</td>
<td>ASTM C1305</td>
</tr>
<tr>
<td>Lap shear</td>
<td>30 lbf (133 N)</td>
<td>ASTM D1002¹</td>
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<tr>
<td>Peel strength</td>
<td>12 lbf/in. (2,100 N/m)</td>
<td>ASTM D903</td>
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<tr>
<td>Puncture resistance, membrane</td>
<td>63 lbf (280 N)</td>
<td>ASTM E154</td>
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<tr>
<td>Resistance to hydrostatic head</td>
<td>230 ft (70m) of water</td>
<td>ASTM D5385</td>
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<tr>
<td>Water Vapor Permeance</td>
<td>&lt;0.03 perms</td>
<td>ASTM E96, Method B</td>
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<tr>
<td>Water absorption</td>
<td>&lt;0.05%</td>
<td>ASTM D570</td>
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<td>Methane Permeability</td>
<td>7.8mL/(day.m².atm)</td>
<td>ASTM D1434-82</td>
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<tr>
<td>Methane Permeability, Overlaps</td>
<td>&lt;10 mL/day.m².atm</td>
<td>ASTM D1434</td>
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</table>

Footnotes:
1. The test is run at a rate of 2 in. (50 mm) per minute.
2. Individual roll length may vary +/- 1%

All declared values shown in this data sheet are based on test results determined under laboratory conditions and with the product sample taken directly from stock in its original packing without any alteration or modification of its component parts.