

PROCOR® Composite Waterproofing System Data Sheet

Fluid-applied and sheet waterproofing system

Product Description

PROCOR® Composite Waterproofing System, combining PROCOR® 75 fluid-applied membrane with PROCOR® Composite Membrane, provides a durable, integrated composite waterproofing system for use in vertical and horizontal waterproofing applications. PROCOR® Composite Waterproofing System will protect below ground structures and elevated decks, planters and inverted roofs against water and water vapor ingress. When installed in accordance to GCP published recommendations, the PROCOR® Composite Waterproofing System provides a robust, waterproofing system for critical horizontal and vertical waterproofing applications.

Image

[Prococor Composite Waterproofing Elevated Deck](#)

Image

[Prococor Composite Waterproofing Foundation](#)

Product Advantages

- Dual protection system - combines the advantages of preformed sheet integrally bonded to a seamless fluid for maximum ensurance
- Cold-applied - eliminates fire hazard during application
- Primerless - applied to the substrate with minimal surface preparation
- Flexible - accommodates minor structural movement and will bridge shrinkage cracks
- Fully-adhered system - prevents lateral water migration between the waterproofing and substrate

- Drainage system - high compressive strength drainage sheet available to provide efficient deck drainage
- Warranty systems available - 10-year and 15-year performance warranties are available on request for suitable projects by GCP trained applicators, contact GCP for requirements

System Components

- **PROCOR® 75** - spray-grade, dual-component, self-curing fluid waterproofing membrane
- **PROCOR® Composite Membrane** - three layer cross-laminated, high-density polyethylene membrane integrally laminated to a polypropylene geotextile
- **BITUTHENE® Membrane** - self-adhesive, waterproofing sheet membrane used for sealing side and end laps of PROCOR® Composite Membrane
- **BITUTHENE® Liquid Membrane** - two component elastomeric, liquid applied detailing compound for use with BITUTHENE® membranes
- **HYDRODUCT® Drainage Composite** - high compressive strength, high flow geocomposite horizontal drainage board and protection layer

PROCOR® Waterproofing System Installation Procedures

Safety, Storage and Handling

Refer to product label and SDS (Safety Data Sheet) before use. All users should acquaint themselves with this information prior to working with the material. Carefully read detailed precaution statements on the product labels and SDS before use. SDSs can be obtained from our web site or by contacting us toll free at 866-333-3SBM (3726).

Application

PROCOR® fluid applied waterproofing membranes are typically applied at a minimum thickness of 60 mil (1.5 mm) for nonwarranted systems. PROCOR® can be installed by hand or using airless spray application. GCP has a network of PROCOR® Specialist Spray Applicators who are trained and experienced in spray application. Contact GCP for further details of local applicators, application techniques and spray equipment.

Surface Preparation

Concrete

Cementitious surfaces must be smooth, monolithic and free of frost, voids, spalled areas, loose substrate and sharp protrusions, dirt, oil, grease and debris and must contain no other contaminants or any visible coarse aggregate. Repair defects such as spalled or poorly consolidated areas. Tie-holes and “bugholes” larger than 1/4 in. (6 mm) in diameter or deeper than 1/8 in. (3 mm) or both, should be either pretreated with PROCOR® or repaired with a lean concrete mix or grout. See ASTM D5295, *Preparation of Concrete Surfaces for Adhered Membrane Waterproofing Systems*, for further details on substrate preparation. Cracked, pitted, honeycombed or heavily bugholed surfaces can be filled by spraying from close in (10 in. to 12 in.) but high material usage will result. Under these circumstances it may be more efficient to fill the surfaces with a parge coat of lean mortar mix before application of the PROCOR®. It is also acceptable to fill in gaps with a compatible sealant or caulk. Remove windrows, sharp protrusions and form match lines. Also remove high spots greater than .03 in. (0.8 mm) in height.

On highly porous and rough surfaces, it may be necessary to apply PROCOR® Concrete Sealer or a scratch coat of PROCOR® 75 to provide a smooth surface, before applying the liquid membrane. All substrates must be wire brushed, swept with a stiff broom or blown off with low pressure air to remove dirt, dust and loose stones. Poor quality surfaces with excessive laitance may require shotblasting or pressure washing to provide a dense smooth surface free from contaminants. Please refer to Technical Letter 2 for more information on Inspection and Repair of Concrete.

Masonry

Waterproofing concrete block is critical since most concrete block is porous and therefore susceptible to moisture and water infiltration. Refer to Technical Letter Waterproofing Concrete Block Walls for surface preparation. Apply a scratch coat of PROCOR® to provide a smooth surface before applying the liquid membrane.

Application to Green Concrete or Damp Surfaces

PROCOR® 75 may be applied to green (minimum 3 days cure time) concrete or over surfaces which are damp to the touch. Remove any visible water prior to application. In green concrete or damp

substrate applications, direct sunlight may cause the surface temperature to rise rapidly, drawing moisture from the substrate and resulting in blisters and pinholes in the membrane. Under these conditions it may be necessary to apply PROCOR® Concrete Sealer or a scratch coat of PROCOR® before applying the full thickness PROCOR® membrane. Do not apply PROCOR® 75 waterproofing membranes in wet weather. Once applied, the membranes will not be affected by light rain showers.

Application Temperature

Spray Application: In spray applications using PROCOR® 75, it is possible to work at temperatures below 40°F (4°C) provided there is no frost or condensation on the substrate. The minimum temperature for spray application is 20°F (-7°C). Refer to Technical Letter Spraying PROCOR® 75 at Low Temperatures, or contact your GCP Applied Technologies representative for details on cold weather spraying.

Detailing

Detailing should be completed prior to applying the full coverage of PROCOR® membrane. The continuous field application should completely cover the detail areas to provide double thickness coverage. For a complete description and instructions on PROCOR® details, consult the separate detail sheets.

Inside and Outside Corners

- Apply a 60 mil (1.5 mm) coating of PROCOR® membrane starting in the corner and extending 6 in. (150 mm) from each side of the corner. For added protection over rough surfaces on inside corners install a 1 in. (25 mm) fillet of BITUTHENE® Liquid Membrane by hand to reinforce the corner.

Non-moving Joints and Hairline Cracks

- Apply a 60 mil (1.5 mm) coating of PROCOR® membrane over non-moving joints or hairline cracks and extend the material 6 in. (150 mm) from each side of the opening.
- Non-moving joints are defined in ASTM C898, Standard Guide for Use of High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane With Separate Wearing Course, as cold joints,

construction joints, isolation joints and control joints held together with steel reinforcing bars or wire fabric. These joints are generally considered by the designer of the structural system as non-moving or static joints. Hairline cracks are defined as cracks less than 60 mil (1.5 mm) in width.

Drains and Penetrations

- In drain applications, apply a 60 mil (1.5 mm) coating of PROCOR® 75 membrane over the drain flange and extend it 6 in. (150 mm) beyond the flange.
- Penetration openings must be sealed and stabilized prior to the application of PROCOR® membrane.
- Once sealed and stabilized, install a 1 in. (25 mm) fillet of BITUTHENE® Liquid Membrane around the protrusion. Extend the PROCOR® membrane 6 in. (150 mm) onto the structural substrate and at least 2 in. (50 mm) onto the penetration. For plastic pipes and other low adhesion substrates, a tie-in using PREPRUFE® Tape will be needed.

Spray Application

PROCOR® 75 Membrane may be spray applied to horizontal and vertical surfaces. If PROCOR® 75 is stored in cold temperatures, allow the material to stand for several hours at room temperature to facilitate mixing and application. Contact GCP Applied Technologies for qualified spray equipment.

Thickness Control

Application thickness is controlled in both horizontal and vertical applications by marking the area and spot checking the thickness with a wet film thickness gauge. Swipe and trowel marks on the PROCOR® membrane are acceptable as long as the minimum thickness is maintained.

CAUTION:

ALWAYS INSTALL THE ENTIRE CONTENTS OF THE CONTAINER AS SOON AS POSSIBLE. THE REACTION THAT OCCURS BETWEEN PART A AND PART B IS EXOTHERMIC (GIVES OFF HEAT) AND MIXED MATERIAL LEFT IN THE PAIL WILL REACH TEMPERATURES HIGHER THAN 212°F (100°C). DO NOT COVER THE MATERIAL AFTER IT IS MIXED. DO NOT ADD WATER OR ANY OTHER MATERIAL TO THIN THE PRODUCT.

For PROCOR® 75, use qualified spray equipment systems. Mixing occurs within the spray gun assembly. Pre-mix Part A prior to pumping to bring any settled material back into solution.

Coverage Rates

PROCOR® fluid applied waterproofing membranes are typically applied at a minimum thickness of 60 mil (1.5 mm) for non-warranted systems. The theoretical coverage rate (not including waste) at a 60 mil (1.5 mm) thickness is about 25 ft²/gal (0.6 m²/L). Coverage rates will be reduced over rough and uneven substrates. Consult GCP for coverage rates for water tightness warranted applications.

PROCOR® Composite Membrane Installation

Vertical Applications

Please refer to the PROCOR® Product Datasheet for more specific application instructions for PROCOR® Fluid-Applied Membrane.

- At the footing/wall intersection, treat the inside corner by installing a 1 in. fillet of BITUTHENE® Liquid Membrane.
- Follow by 2 passes of PROCOR® 75 at 60 mil each (120 mil total) extending minimum 12 in. up vertical wall and 12 in. onto footing.
- While the PROCOR® 75 is still tacky (generally less than 10 minutes at 70°F) apply a minimum 18 in. wide strip of PROCOR® Composite Membrane into the PROCOR® 75 with the geotextile side of the PROCOR® Composite Membrane into the PROCOR® 75 centered over the fillet.
- Apply pressure using a hand roller or broom to fully adhere the PROCOR® Composite Membrane for full contact into the PROCOR® 75. For vertical wall, first spray PROCOR® 75 to specified thickness. Cut PROCOR® Composite Membrane into manageable widths and lengths to achieve full vertical wall coverage.
- Apply PROCOR® Composite Membrane into tacky PROCOR® 75, geotextile side into PROCOR® 75.
- Apply pressure using a hand roller or broom to fully adhere the PROCOR® Composite Membrane for full contact into the PROCOR® 75.
- At the footing/wall intersection, PROCOR® Composite Membrane shall overlap the vertical extension of the previously installed PROCOR® Composite Membrane strip minimum 6 in. to

- achieve a water-shedding shingle effect.
- Apply a specified thickness of PROCOR® 75 over the top of the previously installed PROCOR® Composite Membrane strip and press the vertical strip of PROCOR® Composite Membrane into PROCOR® 75 to achieve full contact.
- Adhere a 12 in. wide strip of BITUTHENE® Membrane centered over edge, using a roller to provide full contact to the PROCOR® Composite Membrane.
- Treat all edges of BITUTHENE® membrane with Liquid Membrane. Joining adjacent sheets of PROCOR® Composite Membrane shall be by “butting” seams.
- Apply PROCOR® 75 to specified thickness and apply PROCOR® Composite Membrane as above, applying PROCOR® Composite Membrane into tacky PROCOR® 75, geotextile side into PROCOR® 75.
- Apply pressure using a hand roller or broom to fully adhere the PROCOR® Composite Membrane for full contact into the PROCOR® 75.
- At seams, adhere a 12 in. wide strip of BITUTHENE® Membrane, using a roller to provide full contact to the PROCOR® Composite Membrane.
- Overlap BITUTHENE® strips minimum 2 in., apply in manner to provide watershedding effect.
- Treat all edges of BITUTHENE® Membrane with Liquid Membrane.

PROCOR® Composite Membrane Installation

Horizontal Applications

- Cut PROCOR® Composite Membrane into manageable widths and lengths to achieve full coverage.
- Apply PROCOR® Composite Membrane into tacky PROCOR® 75, geotextile side into PROCOR® 75.
- Apply pressure using a hand roller or broom to fully adhere the PROCOR® Composite Membrane for full contact into the PROCOR® 75.
- Joining adjacent sheets of PROCOR® Composite Membrane shall be by “butting” sidelaps.
- At sidelaps and endlaps, adhere a 12 in. wide strip of BITUTHENE® Membrane, using a roller to provide full contact to the PROCOR® Composite Membrane.
- Overlap BITUTHENE® strips minimum 2 in., apply in manner to provide watershedding effect.
- Treat all edges of BITUTHENE® Membrane with Liquid Membrane.

Backfill

- Allow PROCOR® Composite Waterproofing System to cure at least 24 hours prior to backfill to avoid displacement of the membrane.
- Use care during the backfill operation to avoid damage to the waterproofing system. Follow generally accepted practices for backfilling and compaction.
- Backfill should be added and compacted in 6 in. to 12 in. (150 mm to 300 mm) lifts to avoid stresses on the waterproofing system. Settlement stresses may compromise the integrity of the waterproofing system.

Cleaning

Tools and equipment are most effectively cleaned by allowing the material to cure and simply peeling it off the next day. PROCOR® Flushing Oil is available to clean spray equipment.

Storage and Handling Information

PROCOR® waterproofing membranes (Part A and Part B) should be stored under cover in original sealed containers above 40 °F (4 °C) and below 100 °F (38 °C). Keep Part B from freezing during storage. The shelf life is 9 months in unopened containers.

Limitations

PROCOR® Composite Waterproofing System should not be used in areas where it will be permanently exposed to sunlight, weather or traffic. Maximum exposure period is 30 days. PROCOR® Composite Waterproofing System should not be used in negative side waterproofing applications. Apply PROCOR® directly to structural surfaces. Do not apply PROCOR® over lightweight insulating concrete. Insulation, if used, must be installed over the membrane. PROCOR® is not recommended for use as a tank or containment structure liner unless in split slab construction. PROCOR® is not compatible with petroleum solvents, fuels and oils, materials containing creosote, pentachlorophenol or linseed oil. Do not use part mixes.

PROCOR® Composite Membrane is not a stand-alone waterproofing membrane. PROCOR® Composite Membrane must be combined and properly installed with PROCOR® 75 to form a waterproofing system.

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

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Suite 400, Alpharetta, GA 30009, USA

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

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