

Procor® 75 Spray Grade

Fluid applied waterproofing for roofs of reservoirs and water retaining structures

Advantages

- ANSI/NSF 61 Drinking Water System Components Listed – approved by NSF for use as an external tank coating
- Fully bonded – water cannot track beneath the membrane
- Waterproof – resists a hydrostatic head in excess of 20 m (65 ft)
- Elastomeric – accommodates minor structural movements and will bridge concrete shrinkage cracks
- Chemical cure – no loss of volume; wet thickness = dry thickness
- Seamless – continuous waterproofing integrity with easy detailing
- Damp surface tolerant – can be applied to damp-to-touch surfaces
- Low risk – non-hazardous product, no harmful solvents, safe to use
- Cold applied – eliminates fire hazards during application
- Low odor – no noxious fumes
- Quick and easy application – by airless spray
- Versatile – easy to use at pipe entries, internal and external corners, etc.

Description

Procor® is a two component, synthetic rubber, cold vulcanized, fluid applied waterproofing membrane. It cures to form a resilient, monolithic, fully bonded elastomeric sheet.

Principal Applications

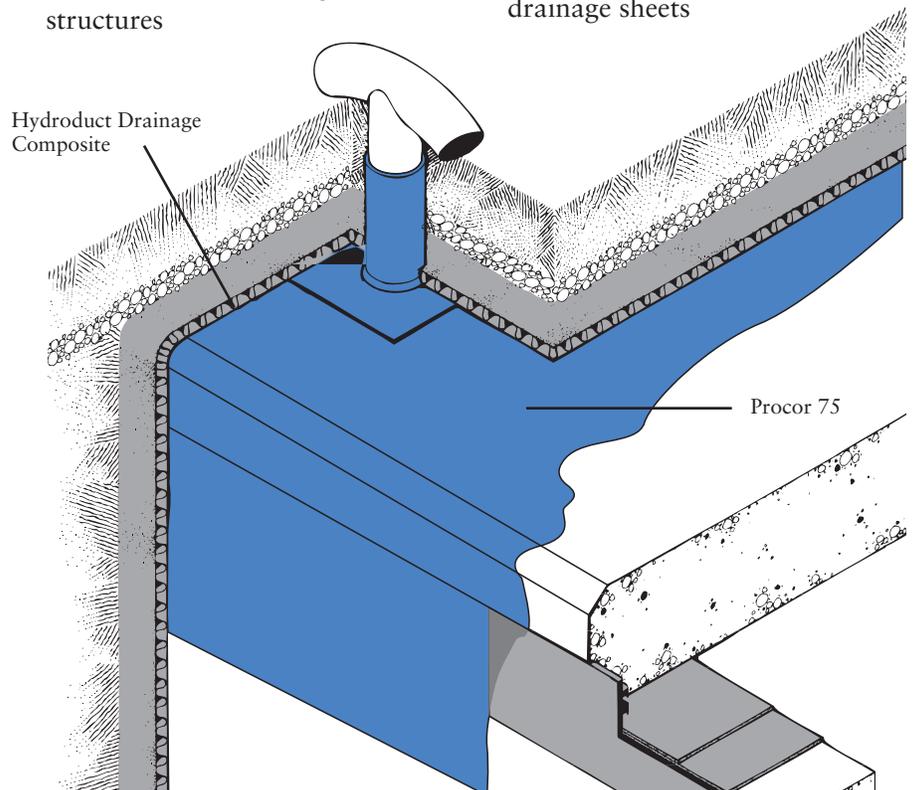
New and remedial waterproofing of:

- Buried or protected roofs and walls of water retaining structures

The Volatile Organic Compound (VOC) content of Procor waterproofing membranes is less than 75 g/L.

System Components

- Procor 75 Spray Grade – for horizontal and vertical applications
- Hydroduct® Drainage Composites – high compressive strength, high flow geocomposite drainage sheets



Installation

Safety

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 the MSDS before use. MSDS's can be obtained from our web site at www.graceconstruction.com or by contacting us toll free at 866-333-3SBM (3726).

CAUTION:

The reaction that occurs between Part A and Part B is exothermic (gives off heat). Thick sections of material or mixed material left in the pail will reach temperatures higher than 100°C (212°F).

Do not cover the material after it is mixed.

Do not add water to thin the product.

Surface Preparation

All cementitious surfaces must be wood float or shutter finish and free from frost, dirt, grease, oil or other contaminants.

Surface irregularities and voids greater than 13 mm ($\frac{1}{2}$ in.) in depth should be pretreated with Procor membrane or repaired with a lean concrete mix or grout. Remove windrows, form match lines and high spots greater than 3 mm ($\frac{1}{8}$ in.) in height. 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 shot blasting or pressure washing to provide a dense smooth surface free from contaminants.

On highly porous and rough substrates it may be necessary to apply Procor Concrete Sealer or a scratch coat of Procor before applying the full thickness Procor membrane. Contact Grace Construction Products if in doubt about the suitability of the substrate.

Application to "Green" Concrete or Damp Surfaces

Procor may be applied to "green" 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 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 4°C (40°F) provided there is no frost or condensation on the substrate. The minimum temperature for spray application is -7°C (20°F). Refer to Technical Bulletin 13, "Spraying Procor 75 at Low Temperatures," or contact your Grace Construction Products representative for details of 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 1.5 mm ($\frac{1}{16}$ in.) coating of Procor membrane starting in the corner and extending 150 mm (6 in.) from each side of the corner.

Non-moving Joints and Hairline Cracks

- Apply a 1.5 mm ($\frac{1}{16}$ in.) coating of Procor membrane over non-moving joints or hairline cracks and extend the material 150 mm (6 in.) from each side of the opening.
- Non-moving joints are defined in ASTM C 898, "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 1.5 mm ($\frac{1}{16}$ in.) in width.

Drains and Penetrations

- In drain applications, apply a 1.5 mm ($\frac{1}{16}$ in.) coating of Procor membrane over the drain flange and extend it 150 mm (6 in.) beyond the flange.
- Penetration openings must be sealed and stabilized prior to the application of Procor membrane.

- Once sealed and stabilized, install a 25 mm (1 in.) fillet of Procor around the pipe base. Extend the Procor membrane 150 mm (6 in.) onto the structural substrate and at least 50 mm (2 in.) 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. Contact Grace Construction Products for qualified spray equipment.

Thickness Control

Application thickness is controlled by marking the area and spot checking the thickness with a wet film thickness gauge.

Mixing

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 1.5 mm ($\frac{1}{16}$ in.). The theoretical coverage rate (not including waste) at a 1.5 mm ($\frac{1}{16}$ in.) thickness is about 0.6 m²/L (25 ft²/gal). Coverage rates will be reduced over rough and uneven substrates.

Drainage, Protection or Insulation

Protect Procor membranes to avoid damage from other trades, construction materials and backfill. Protection products may be installed on the same day as the Procor membrane. Bonding of the protection products to the Procor membrane is achieved if the protection products are installed when the Procor membrane is

tacky, generally 1 to 2 hours after the Procor membrane is installed. To achieve non-bonded protection, wait until the Procor membrane surface is no longer tacky, or spread cement dust or lime to remove the tack prior to applying the protection. Take care not to displace the Procor membrane.

On horizontal applications, use Hydroduct 660 Drainage Composite. Alternate methods of protection are 3 mm ($\frac{1}{8}$ in.) or 6 mm ($\frac{1}{4}$ in.) asphalt hardboard. Extruded polystyrene insulation boards may also be used and are compatible with Procor membranes.

On vertical applications, use Hydroduct 220 Drainage Composite. Alternate methods of protection are 25 mm (1 in.) expanded polystyrene or 6 mm ($\frac{1}{4}$ in.) extruded polystyrene with a minimum 690 kN/m² (100 lbs/in.²) compressive strength. Such alternatives do not provide positive drainage to the system. If 6 mm ($\frac{1}{4}$ in.) extruded polystyrene protection board is used, backfill should not contain sharp rock or aggregate over 50 mm (2 in.) in diameter.

Backfill and Flood Tests

Allow Procor waterproofing membrane 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 150 mm (6 in.) to 300 mm (12 in.) lifts to avoid stresses on the waterproofing system. Settlement stresses may compromise the integrity of the waterproofing system.

Flood test all horizontal applications with a maximum 50 mm (2 in.) head of water for at least 24 hours. Mark any leaks and repair when the membrane is dry. Before flood testing, be sure the structure will withstand the dead load of the water. For well-sloped decks, segment the flood test to avoid deep water near drains. Start flood test 48 hours after completing the application of Procor fluid applied waterproofing. Low voltage electronic leak detection techniques are also suitable.

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 4°C (40°F) and below 38°C (100°F). Keep Part B from freezing during storage. The shelf life is 9 months in unopened containers.

Limitations

Procor membranes should not be used in areas where they will be permanently exposed to sunlight, weather or traffic.

Maximum exposure period is 30 days.

Procor membranes should not be used in negative side waterproofing applications in hydrostatic condition.

Do not use part mixes.

Supply

Product	Unit of Sale	Approximate Coverage at 1.5 mm (60 mil)	Weight	Palletization
Procor 75	75 gallon kit	1875 ft ² /kit	748 lbs/kit, net (573 lbs Part A + 175 lbs Part B)	1 or 2 kits/pallet, for orders of 1 or 2 kits only
Hydroduct 660	1 roll (4 ft x 50 ft roll)	200 ft ² /roll	54 lbs/roll	6 rolls/pallet

Footnote:

- Nominal coverage based on 25 sf/gal for smooth concrete. Coverage will vary with substrate condition.

Physical Properties

Property	Typical Value	Test Method
Resistance to hydrostatic head over 3.2 mm (1/8 in.) post formed crack	20 m (65 ft)	ASTM D 5385
Peel adhesion to concrete	880 N/m (5 lbs/in.)	ASTM C 903 Modified ²
Elongation	500%	ASTM D 412
Pliability, 180° bend over 25 mm (1 in.) mandrel at -30°C (-23°F)	unaffected	ASTM D 1970
Low temperature flexibility and crack bridging 3.2 mm (1/8 in.) crack cycling at -26°C (-15°F)	Pass	ASTM C 836
Extensibility over 6.4 mm (1/4 in.) crack after heat aging	Pass	ASTM C 836
Solids content	100%	ASTM D 1644

Footnote:

- Procor waterproofing membrane is applied to concrete and allowed to cure. Peel adhesion of the membrane is measured at a rate of 50 mm (2 in.) per minute with a peel angle of 90° at room temperature.

Specification Clauses

Below grade areas shall be waterproofed with Procor Fluid Applied Waterproofing.

All Procor materials shall be supplied or approved by Grace Construction Products. All detailing, application and protection shall be installed strictly in accordance with Grace instructions. Sample performance and formatted clauses are also available.

Approvals

Procor 75 is approved by NSF under the requirements of ANSI/NSF 61 Drinking Water System Components for use as an external tank coating on potable water tanks of 200,000 gallons or greater. Procor also meets the UK water industry requirements and is listed in the UK Water Fittings and Materials Directory.

For Technical Assistance call us toll free at 866-333-3SBM (3726).

 Visit our web site at www.graceconstruction.com

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