

# MAPEPROOF® AL PRO

## PRE-APPLIED, FULLY BONDED HDPE WATERPROOFING MEMBRANE FOR BELOW GRADE APPLICATIONS

### PRODUCT DESCRIPTION

Mapeproof AL PRO bonds integrally to poured concrete forming an adhesive bond to protect below grade structures from water intrusion and lateral water migration. Convenient adhesive side lap forms watertight laps between successive sheets. Ideal for horizontal slabs and vertical blindside applications.

### FEATURES AND BENEFITS

- Designed as a kick-out roll for faster installation and reduced labor costs
- Easy to form self-adhered side laps
- Adhesive bond to concrete prevents lateral water migration
- High hydrostatic head resistance
- Unaffected by ground settlement
- Durable and self-protecting, can be trafficked immediately after installation for subsequent trade work
- Unaffected by wet/dry cycling or ponding water
- Excellent chemical resistance and protection against gas vapor intrusion
- Red list free

### SYSTEM COMPONENTS

- Mapeproof AL PRO Membrane, 46 mil, horizontal and vertical grade high-performance pre-applied waterproofing membrane
- Mapeproof AL Detail Tape (4" And 8" widths), double-sided adhesive tape for watertight detailing
- Mapeproof Liquid Membrane, trowel grade liquid detailing accessory
- Mapethene LT 60/HT 60, post-applied waterproofing membrane used in various Mapeproof AL details
- Mapedrain HS, High-strength, high-flow drainage board with protective film
- Mapestrip 25, expanding rubber waterstop for watertight joints and transitions

### TECHNICAL DESCRIPTION

Property	Test Method	Typical Result
Thickness (mm)		1.2
Lateral water migration resistance	ASTM D5385 Modified	Pass at 231 ft (71 m) of hydrostatic head pressure
Resistance to Hydrostatic Head	ASTM D5385	Pass at 231 ft (71 m) of hydrostatic head pressure
Low temperature flexibility	ASTM D 1970	Unaffected @ -29C
Crack cycling	ASTM C836	Unaffected @ -23C
Tensile Strength	ASTM D412	3988 psi (27.5 MPa)
Elongation	ASTM D412	400%
Peel adhesion to concrete	ASTM D903	10 lbf/in (1750 N/m)
Lap peel adhesion	ASTM D1876	8.00 lbf/in (1401 N/m)
Puncture resistance	ASTM E154	200 lbf (890 N)
Permeance to water vapor transmission	ASTM E96 (Method B)	< 0.01 perms
ICC-ES AC527	Various	PASS
TCE/PCE permeance	ASTM F739	Not detected
Methane permeance (before & after soil burial)	ASTM D1434	< 25 ml/day-m <sup>2</sup> -atm
Tensile strength after soil burial	ASTM D412/ ASTM D4068	< 90% Retained
Elongation after soil burial	ASTM D412/ ASTM D4068	< 90% Retained



### PRODUCT DATA

Roll Size ..... 4' x 98.4' (1.2 m x 30 m)  
Coverage ..... 387 ft<sup>2</sup> (36 m<sup>2</sup>)  
Weight per roll ..... 108 lb (49.0 kg)  
Rolls/Pallet ..... 16

### APPROVALS & CERTIFICATIONS

- City of Los Angeles Research Report RR 26232
  - Waterproofing
  - Methane
  - Shotcrete

### WHERE TO USE

- Horizontal or vertical
- Underslab applications
- Blindside walls

### PRODUCT CODES

- 2828530

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### STORAGE AND SHELF LIFE

12 month shelf-life if stored in its original packaging in a dry environment at a temperature between 40°F and 90°F (4°C and 32°C). Store Mapeproof AL PRO off the ground and protected from moisture.

### LIMITATIONS

- Mapeproof AL PRO cannot be left exposed for more than 60 days, prior to concrete placement
- For use with single sided formwork only
- Reinforcing steel support must be concrete or brick, blocks, pavers or dobies unless otherwise approved by Polyglass Technical Service
- Contact Polyglass Technical Service for application over carton forms or shotcrete applications

### SUITABLE SUBSTRATES AND SURFACE PREPARATION

- Ensure all substrates are sound, stable and free of voids or gaps greater than 0.5" (13 mm)
- *Horizontal Substrates* – Install over concrete, compacted earth, or crushed stone. Compacted earth or crushed stone must be compacted to ensure the substrate is not displaced under foot traffic, installation of the Mapeproof AL PRO or concrete placement. All penetrations through the Mapeproof AL PRO must be grouted solid if earth or crushed stone is being used as the substrate. Debris, loose and or sharp aggregate must be removed prior to the installation of Mapeproof AL PRO. The substrate can be damp but must be free of standing water during installation.
- *Vertical Substrates* – Install over properly prepared support of excavation (SOE) systems. Concrete, shotcrete, insulation, plywood and Mapedrain HS can all be used as facing materials up against typical SOE systems. Mapedrain HS can span gaps up to 2.5" (64 mm) in the immediate substrate prior to the application of Mapeproof AL PRO.

### PRODUCT APPLICATION

#### TEMPERATURE

Mapeproof AL PRO and Mapeproof AL Detail Tapes can be installed at temperatures of 25°F (-4°C) or above.

When installing Mapeproof AL PRO below 50°F (10°C), the use of Mapeproof AL Detail Tape is required at all side laps.

#### HORIZONTAL INSTALLATION

- Install the HDPE side of the Mapeproof AL PRO towards the substrate with the white protective coating facing the concrete pour. Position succeeding sheet to overlap the previously installed sheet by 3" (76 mm). The previously installed sheet has a marked selva edge to help facilitate alignment. Ensure the HDPE side (underside) of the succeeding sheet is clean and dry. Remove the release strip between the two

sheets to expose the adhesive. Press two sheets together to form the lap and then roll the lap firmly with a steel roller. All end laps should be staggered by a minimum of 8" (20 cm).

- A starter strip of Mapeproof AL PRO should be installed around the perimeter of the site running parallel with the perimeter walls at conveniently handled lengths. The starter strip should extend a minimum of 12" (30 cm) onto the horizontal plane with the rest of the membrane extending vertically. This will minimize seams in the system at horizontal to vertical transitions.
- Mapeproof AL PRO can be installed within vertical formwork that will later be removed to expose the adhered Mapeproof AL PRO for post applied tie-ins per standard details. The Mapeproof AL PRO should be installed within the vertical formwork but left slightly below the top of the form. Forms must be left in place until the concrete has gained sufficient compressive strength to ensure the Mapeproof AL develops a bond to the concrete which generally can be achieved when the concrete reaches 3000 psi (20 MN/m²). Cold weather and unique mix designs may require formwork to remain in place longer.
- All exposed Mapeproof AL PRO after formwork removal must be protected with an approved protection course, such as Mapedrain HS, rigid insulation or 1/8" (3 mm) asphaltic hardboard prior to backfilling.

#### VERTICAL INSTALLATION

- Vertical sheets should be installed in water shedding fashion. Mapeproof AL PRO can be held in place as needed during vertical installation with low profile fasteners appropriate for the substrate, installed within the adhesive edge so that succeeding sheets cover all fasteners. Fasteners must be placed no more than 0.5" (13 mm) from the edge of the sheet. Install the HDPE side of the Mapeproof AL PRO towards the substrate with the white protective coating facing the concrete pour. Position succeeding sheet to overlap the previously installed sheet by 3" (76 mm). The previously installed sheet has a marked selva edge to help facilitate alignment. Ensure the HDPE side (underside) of the succeeding sheet is clean and dry. Remove the release strip between the two sheets to expose the adhesive. Press two sheets together to form the lap and then roll the lap firmly with a steel roller. All end laps should be staggered by a minimum of 8" (20 cm).
- All horizontal and vertical end laps or cut edges must be overlapped by a minimum of 3" (76 mm) and sealed with Mapeproof AL Detail Tape per standard details.
- Refer to Polyglass standard details drawings for additional installation instructions and system requirements.



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### MEMBRANE REPAIR

Inspect all work and repair if necessary, prior to concrete placement. Repair cuts, slices or small punctures 0.5" (13 mm) or less with Mapeproof AL Detail Tape extending a minimum of 3" (76 mm) past the damaged area. For larger repairs install a piece of Mapeproof AL PRO Membrane extending a minimum of 6" (150 mm) past the damaged area and tape the membrane patch to the previously installed Mapeproof AL PRO with Mapeproof AL Detail Tape.

### CONCRETE PLACEMENT

Ensure the release liner is removed from all Mapeproof AL Detail Tape prior to concrete placement. The Mapeproof AL PRO Membrane can be wet prior to concrete placement but pooling water should be removed from depressions, pile pits, etc. Avoid consolidating concrete with sharp objects that may damage the membrane.

### CORPORATE HEADQUARTERS

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### Product Disclaimer:

For professional use only.

Unless otherwise incorporated into or part of a supplemental manufacturer's warranty, Polyglass warrants its product(s) against manufacturing defects in its product that directly results in leakage for a period of 1 year. Refer to safety data sheet (SDS) for specific data and handling of our products. All data furnished refers to standard production and is given in good faith within the applicable manufacturing and testing tolerances. Polyglass U.S.A., Inc., reserves the right to improve and change its products at any time without prior notice. Polyglass U.S.A., Inc. cannot be held responsible for the use of its products under conditions beyond its own control. For most current product data, detail drawings and warranty information, visit [www.polyglass.us](http://www.polyglass.us)