

MAPEPROOF™ FBH

PRE-APPLIED, FULLY BONDED WATERPROOFING MEMBRANE WITH MULTI-LAYER TECHNOLOGY FOR BELOW GRADE APPLICATIONS

PRODUCT DESCRIPTION

Mapeproof FBH is a fully bonded membrane for foundation waterproofing. It features an HDPE layer with multi-layer bonding technology, ensuring both adhesive and physical bonds with concrete. The PolyPropylene fibers enhance mechanical interlocking during the initial concrete curing process, reducing delamination risk when the concrete forms are removed. The unique fiber pattern increases bonding surface area, while SEAllap® Technology reinforces side laps for better adhesion. At 49 mils thick, it withstands foot and trade traffic, offering high durability. HDPE provides excellent resistance to contaminants like methane and radon. Mapeproof FBH is easy to use for both horizontal and vertical applications, with a kick-out roll design for quick installation. It's also Red List free, making it an environmentally friendly choice.

FEATURES AND BENEFITS

- Fully adhered with multi-layer bonding technology
- High initial bond via mechanical interface
- Proprietary adhesive forms integral bond to the concrete
- Prevents lateral water migration
- Hydrostatic head resistance
- Reinforced side laps with SEAllap Technology
- Excellent gas & chemical resistance
- Reinforced fibers provide additional bonding surface area
- 49 mils thick for enhanced durability
- Suitable for horizontal and vertical applications
- Red list free

SYSTEM COMPONENTS

- Mapeproof FBH Membrane, 49 mil, horizontal and vertical grade high-performance pre-applied waterproofing membrane
- Mapeproof FBT Tape 600 (6" width), 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 FBH 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 | Result |
|---------------------------------------|---------------------|--|
| Thickness (mm) | | 1.25 mm |
| 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 D1970 | Unaffected @ -29°C |
| Crack Cycling | ASTM C1305 | Unaffected @ -23°C |
| Tensile Strength | ASTM D412 | 3000 psi (20.5 MPa) |
| Elongation | ASTM D412 | 700% |
| Peel adhesion to concrete | ASTM D903 | 10.0 lbf/in (1750 N/m) |
| Lap peel adhesion | ASTM D1876 | 8.0 lbf/in (1401 N/m) |
| Puncture resistance | ASTM E154 | 200 lbf (890 N) |
| Permeance to water vapor transmission | ASTM E96 (Method B) | < 0.04 perms |
| Radon Coefficient | ISO/TS 11665-13 | 1.01 E-13 m ² s ⁻¹ |



PRODUCT DATA

Roll Size 3.3' x 65.6' (1 m x 20 m)
 Coverage 215 ft² (20 m²)
 Weight per roll 40 lb (18 kg)
 Rolls/Pallet 18

WHERE TO USE

- Horizontal or vertical
- Underslab applications
- Blindside walls

PRODUCT CODES

- FTM3P24005 - Mapeproof FBH 1.0 m
- FTM3P24006 - Mapeproof FBT Tape 600 (6" Width)



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LIMITATIONS

- Mapeproof FBH 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 FBH or concrete placement. All penetrations through the Mapeproof FBH 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 FBH. 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 FBH.

PRODUCT APPLICATION

TEMPERATURE

Mapeproof FBH and Mapeproof FBT 600 Tape can be installed at temperatures of 32°F (0°C) or above.

When installing Mapeproof FBH below 50°F (10°C), the use of Mapeproof FBT 600 Tape is required at all side laps.

HORIZONTAL INSTALLATION

- Install the HDPE side of the Mapeproof FBH towards the substrate. Position the succeeding sheet to overlap the previously installed sheet by 3" (76 mm) along the selvedge to facilitate alignment. Ensure the underside of the succeeding sheet is clean and dry. Remove both the release strips simultaneously from each sheet to form the adhesive-to-adhesive 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 FBH 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 FBH can be installed within vertical formwork that will later be removed to expose the adhered Mapeproof FBH for post applied tie-ins per standard details. The Mapeproof FBH 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 FBH develops a bond to the concrete. Cold weather and unique mix designs may require formwork to remain in place longer.
- All exposed Mapeproof FBH 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 FBH 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 FBH towards the substrate. Position the succeeding sheet to overlap the previously installed sheet by 3" (76 mm) along the selvedge to facilitate alignment. Ensure the underside of the succeeding sheet is clean and dry. Remove both the release strips simultaneously from each sheet to form the adhesive-to-adhesive 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 FBT 600 Tape per standard details.
- Refer to Polyglass standard details drawings for additional installation instructions and system requirements.



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STORAGE AND SHELF LIFE

24 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 FBH off the ground and protected from moisture.

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 FBT 600 Tape extending a minimum of 3" (76 mm) past the damaged area. For larger repairs install a piece of Mapeproof FBH Membrane extending a minimum of 6" (150 mm) past the damaged area and tape the membrane patch to the previously installed Mapeproof FBH with Mapeproof FBT 600 Tape.

CONCRETE PLACEMENT

Ensure the release liner is removed from all Mapeproof FBT 600 Tape prior to concrete placement. The Mapeproof FBH 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