

Dr. Fixit Prebond E



PRE APPLIED FULLY BONDED HDPE MEMBRANE

Description

Dr. Fixit Prebond E is a preformed and pre-applied HDPE fully bonded membrane that bonds to the wet concrete cast on the membrane. After the membrane bonds with the concrete it forms an integral seal which prevents lateral water migration and makes it unaffected by any substrate settlement below the slabs. Reinforcement can be directly laid on top of the membrane and it does not require screed protection.

Dr. Fixit Prebond E is a unique HDPE membrane comprising of a HDPE layer and a pressure sensitive adhesive layer which is covered by a weather proof protective layer. The adhesive layer is activated when the concrete is poured on the membrane and it enables the membrane bond to underside of the concrete which prevents the ingress of water into the structure as well as prevents tracking of water between the membrane and the structure and provide a positive side protection against ingress of sub soil water. Dr. Fixit Prebond E can be used for horizontal as well as vertical blind side application.

Standard Compliance / Specification

Complies with IS 16471:2017 & BS 8102:2009 recommendations for providing Type A protection

Areas of Application

- Foundation design with isolated & combined footing
- Retaining walls for confined area
- Cut and cover tunnels
- Other underground civil structures

Features & Benefits

- Excellent Adhesion with concrete placed over the membrane, to protect the structure effectively, from the positive side.
- Low flatness requirement to substrate; reliable overlapping; fast and easy application.
- Lesser joints and overlaps, due to large roll widths.
- Adaptable to varying surface profile of the substrate.
- Resistant to high hydrostatic ground water-pressure.
- Resistant to aggressive ground water conditions.
- Eco-friendly material.

Method of Application

1 SURFACE PREPARATION

- Horizontal Blinding - Monolithic concrete blinding must be free of loose aggregate and sharp protrusions.
- The surface does not need to be dry. However, standing water must be removed.
- Vertical confined surface - Use concrete, sacrificial plywood, masonry with flush levelled joints or other approved facing to provide smooth, level and even support to the membrane

2 MEMBRANE INSTALLATION

- Dr. Fixit Prebond E membranes can be applied at ambient temperatures of -4°C or above.

3 HORIZONTAL SUBSTRATES

- Place the membrane with adhesive side facing the concrete pour and HDPE film side facing the substrate.
- End laps should be staggered to avoid a buildup of layers. Accurately position succeeding sheets to overlap the previous sheet by 75 mm along the marked selvedge.
- Peel back the plastic release liner from between the overlaps as the two layers are bonded together. Ensure a continuous bond is achieved without creases and roll firmly with a heavy roller.



4 VERTICAL SUBSTRATES (CONFINED RETAINING WALLS)

- Membrane can be vertically installed using double sided adhesive tape or mechanically fasten the membrane vertically using low head fixings (i.e. fasteners or roundels) at selvedge portions only with the adhesive side facing towards the concrete pour.
- The membrane may be installed in any convenient length. Secure the top of the membrane using a batten such as a termination bar or fixing 50 mm below the top edge.
- Fixings can be made through the selvedge so that the membrane lays flat and allows firmly rolled overlaps.
- Any additional fixings must be covered with a patch of Prebond Tape.
- Ensure the underside of the succeeding sheet is clean, dry and free from contamination before attempting to overlap. Roll firmly to ensure a watertight seal.

Roll Ends and Cut Edges

- Overlap all roll ends and cut edges by a minimum of 100 mm and ensure the area is clean and free from contamination. Apply Dr. Fixit Prebond Tape centered over the lap and roll firmly.

5 CORNERS

- Internal and external corners should be pre-formed as per manufacturer instruction, overlapping the membrane with a minimum of 100 mm selvedge and sealing with Dr. Fixit Pre-Bond Tape (both Double side & Single Side tapes to be used as required as per the authorized applicator requirements at site). Ensure that the apex of the corner is covered and sealed with tape and roll firmly.

Technical Properties

PROPERTIES	TYPICAL VALUE	TEST METHOD
Colour	White / Off White	Visual Observations
Thickness of Composite Membrane	1.2 mm	ASTM D 3767
Thickness of Bare HDPE Membrane	0.7 mm	ASTM D 3767
Tensile Strength (Bare HDPE film)	21 MPa	ASTM D 412
Elongation (Bare HDPE film)	400 %	ASTM D 412
Low Temperature Flexibility	- 25°C Pass	ASTM D 1970
Resistance to Hydrostatic Head	60 M	ASTM D 5385
Crack Cycling	Pass	ASTM C1305
Peel Adhesion to Concrete	880 N/m	ASTM D 903
Puncture Resistance	800 N	ASTM E 154
Dimensional Stability	0.5 %	ASTM D 1204
UV Exposure Limit	21 days pass	Internal test method

All test parameters are obtained under controlled Lab conditions.

Limitations

1. Product is approved for uses only those specifically detailed in this product data sheet. Contact Pidilite Technical Services where any other use is anticipated or intended.
2. Technical properties may vary by 5% due to practical challenges like variation in UTM machines, rate of loading, sample preparation, thickness measurement and other manual errors. Contact Pidilite Technical services in such situations.
3. During summer season the membrane adhesive may slightly stick to shoes while walking over it. Please note that this is due to the residual tackiness of the adhesive and it is a normal phenomenon, which will not affect performance of the membrane. Contact Pidilite Technical services in such situations



Note: Tensile strength & elongation has been tested longitudinally. Results in transverse direction may vary.

Packaging

Roll Size : 2.4 mtr x 20 mtr

Shelf Life

The shelf life is 12 months if stored as per the recommendations in a covered and secured storage space.

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