



Fosroc Membrane HDPE-P

Pre-applied HDPE pressure sensitive adhesive waterproofing membrane which bonds integrally to poured concrete, remaining in place if settlement of substrate occurs.

Uses & Advantages

- Basement waterproofing protection to grades 1,2 and 3 as defined in BS 8102 : 2022 & IS 16471 : 2017
- To provide a vapour and waterproof membrane in building and civil engineering structures
- Forms a integral bond to poured concrete by pressure sensitive adhesive and remaining in place if settlement of the substrate occurs
- Simple application - no primers or protection material required
- Inert product - no risk of a reaction with ponded waste prior to concrete being poured
- Facilitates flexible construction programming
- Full range of Fosroc hydrophilic and PVC waterstops available to provide complete solution to waterproofing of the structure.

Description

Fosroc Membrane HDPE-P is a membrane HDPE film pressure sensitive adhesive which allows poured concrete to bond fully with the membrane.

Fosroc Membrane HDPE-P provides water, water vapour protection to water excluding structures and protects concrete from aggressive ground salts, chemicals and hydrocarbons.

Fosroc Membrane HDPE-P is supplied with a self adhesive selvedge along one side of the roll to provide sealed laps and a comprehensive range of auxiliary products to simplify the application process.

Standard compliance

British Standard 8102:2022 & Indian Standard 16471 : 2017 - code of practice for 'Protection of Structures against Water from the Ground'

Specification Clauses

The waterproof tanking membrane shall be Fosroc Membrane HDPE-P, consisting of HDPE membrane with one layer of pressure sensitive adhesive and one layer of protective trafficable layer. The membrane bonds integrally to freshly poured concrete by pressure sensitive adhesive bond .

The membrane shall be supplied with one self-adhesive selvedge to provide sealed laps and comply with British Standard 8102 2022 - Code of practice for "Protection of Structures Against Water from the Ground" to provide basement waterproofing protection to grades 1, 2 and 3.

Typical Properties

| Physical properties | Typical values |
|--|--|
| Thickness | : 1.2mm,1.5mm & 1.8mm |
| Bare Film Thickness | : 1.2mm (available for 1.5mm thick membrane) |
| Tensile strength (ASTM D412) | : >27 MPa |
| Elongation | : > 500% |
| Puncture resistance (ASTM E154) | : >1000 N \pm 5% |
| Peel Adhesion to concrete (ASTM D903 Modified) | : >1500 N/m |
| Resistance to hydrostatic head (ASTM D751-06(2011)) | : > 70 mtr |
| Low temperature flexibility | : < -25°C, no crack |
| Linear Dimensional change (Dimensional Stability) (ASTM D1204) | : 0.1% |
| UV exposure test (45 days) (ASTM G153) | : No change |
| Lap joint strength (ASTM D1876) | : 1500 N/m |

Note: The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary, dependent on actual site conditions.

Application Instructions

Surface preparation

The Concrete surface should be foat finished and free from cavities and projecting ribs. All surfaces shall be dry and free from frost, surface laitance and contamination.

Membrane Application

Horizontal Areas : Fosroc Membrane HDPE-P is unrolled and placed in position. Each roll is overlapped by next layer by 75mm. Use Fosroc Membrane HDPE sealed tape, where there is a cut joint by hot air shovelling to 100 mm width. Self Adhesive sanded tape may be used where necessary for corners and upstands. All overlaps and joints should be firmly rolled to ensure complete adhesion between layers.

Vertical Areas

Without working space : Fosroc Membrane HDPE-P to be used for all vertical section, where the retaining wall is abutting the shored or gunnited or piled surfaces. The membrane to be dropped down on to the vertical surfaces and anchored mechanically.

Fosroc Membrane HDPE-P

With working space : Fosroc Membrane HDPE-S, self adhesive HDPE Membrane is applied on to the vertical surfaces. The membrane is applied by removing the release film and pressing firmly on to the surfaces by roller.

General Instruction

When laying adjacent full rolls there should be a stagger of half a roll length to avoid a build up of end joints in one area.

Self Adhesive sanded tape may be used where necessary for corners and upstands.

Removal of formwork

Where the membrane has been applied to removable shuttering it is recommended that a minimum concrete compressive strength of 10 N/mm² is reached before the formwork is stripped.

Penetrations

Penetrations e.g., pipe entries through Fosroc Membrane HDPE-P, require special attention to detail. Refer to Fosroc for more information on details.

Backfilling

Backfilling material must be free from sharp objects and debris that could damage the Fosroc Membrane HDPE-P. It should not contain house bricks, blocks or boulders larger than 50 mm.

Contaminated ground

Fosroc Membrane HDPE-P is suitable for use in many contaminated ground applications eg hydrocarbons, salts etc. Consult local Fosroc office for specific advice.

Ancillary products

Fosroc Membrane HDPE -Sealed Tape

Double-side Adhesive Flashing tape has two layers of adhesive which bond respectively to the HDPE surface.

The specially developed Fosroc Membrane HDPE Sealed Tape work together to form a continuous and integral seal to the structure.

Fosroc Membrane HDPE Sealed Tape is an 100mm wide tape used in detail areas including end laps and various tie-ins. It is also used to patch damaged areas in the Fosroc Membrane HDPE-P.

Installation

End Overlaps

Keep the Fosroc Membrane HDPE Sealed Tape clean and protect it from being contaminated from dust before use. After applying the Fosroc Membrane HDPE-P, unroll the tape and remove the release film and adhere to the end laps of the membrane. Use heavy hand pressure or a hand roller to maximize adhesion. Then remove the PE release film and overlap with the second membrane.

It is recommended that concrete be poured within 56 days (42 days in hot climates) of application of the tape. The concrete must be placed carefully and consolidated properly to avoid damage to the membrane. Never use a sharp object to consolidate the concrete. Provide temporary protection from concrete over splash for areas of the tape that are adjacent to a concrete pour.

Estimating

Fosroc Membrane HDPE-P

| | |
|------------|-----------|
| Roll size: | 1.5 x 20m |
|------------|-----------|

Fosroc Membrane HDPE Sealed Tape

| | |
|---------|-------|
| Width : | 100mm |
|---------|-------|

| | |
|----------|-------|
| Length : | 10mtr |
|----------|-------|

Sanded Tape

| | |
|---------|-------|
| Width : | 100mm |
|---------|-------|

| | |
|----------|-------|
| Length : | 20mtr |
|----------|-------|

Storage

Shelf life

Fosroc Membrane HDPE-P has a shelf life of 36 months if stored as per the recommendations in a covered and secured storage space.

Store in original unopened packaging, in cool dry conditions, away from sunlight, in a flat position.

Precautions

Health and safety

For further information refer to appropriate Product Safety Data Sheets available at www.fosroc.com.

Complete rolls should be handled by minimum two persons.



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Important note :

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