

# Fosroc Membrane HDPE-P (Smooth) RF



constructive solutions

**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: 2009 & IS 16471 : 2017
- To provide a vapour and waterproof membrane in building and civil engineering structures
- Forms an 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
- Prevents lateral migration of water
- 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(Smooth) RF is a HDPE membrane with a release film over pressure sensitive adhesive which allows poured concrete to bond fully with the membrane.

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

Fosroc Membrane HDPE-P (Smooth) RF 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 8102:2009 & 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(Smooth) RF consisting of HDPE membrane with adhesive which 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 2009 - 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
Tensile strength, film	: > 25 MPa
Elongation (ASTM D412)	: >500%
Puncture resistance (ASTM E154)	: > 1000 N +/-5%
Peel Adhesion to concrete (ASTM D903 Modified)	: >880 N/m
Resistance to hydrostatic head (ASTM D751-06(2011))	: > 70 mtr
Low temperature flexibility (ASTM C765)	: < -25°C, no crack

Clarification of property values : The typical properties given above are derived from laboratory testing. Results derived from field applied samples may vary.

## Application Instructions

### Surface preparation

The Concrete surface should be float 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(Smooth) RF is unrolled and placed in position. Each roll is overlapped by next layer by 75mm. Use Fosroc Membrane HDPE sealed tape, for transversal end laps and cut joint to 100 mm width. All overlaps and joints should be firmly rolled to ensure complete adhesion between layers.

### Vertical Areas

Without working space : Fosroc Membrane HDPE-P(Smooth) RF 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.

With working space : Proofex 3000, self adhesive bituminous, cross laminated with 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.

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## General Instruction

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

## Removal of formwork

Where the membrane has been applied to removable shuttering it is recommended that a minimum concrete compressive strength of 10 N/mm<sup>2</sup> is reached before the formwork is stripped.

## Penetrations

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

## Backfilling

Preferably membrane should be protected from suitable protection boards before backfilling to avoid damages to the membrane. Backfilling material must be free from sharp objects and debris that could damage the Fosroc Membrane HDPE-P(Smooth) RF. It should not contain house bricks, blocks or boulders larger than 50mm.

## Contaminated ground

Fosroc Membrane HDPE-P(Smooth) RF 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 (Smooth) RF.

## Installation

### End Overlaps

Keep the Fosroc Membrane HDPE Sealed Tape clean and protect it from being contaminated from dust before use. After laying the Fosroc Membrane HDPE-P (Smooth) RF, cut the release liner at 100mm for the end over lap, 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 maximise adhesion. Then remove the PE release film and overlap with the second membrane.

It is recommended that concrete be poured within 45 days 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(Smooth)RF

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Roll size:	1.2 x 20m
	2.4 x 20m

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### Fosroc Membrane HDPE Sealed Tape

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Width :	100mm
Length :	10mt length

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## Storage

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](http://www.fosroc.com).

Complete rolls should be handled by minimum two persons.



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### Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.

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