

Proofex 12

Reinforced waterproof and vapour-proof membrane

Uses

To provide a vapour and waterproof membrane in building and civil engineering structures.

To act as a barrier to the passage of vapour through ground slabs. It also protects concrete from attack by aggressive ground salts.

Typical applications include basements, ground slabs, reservoir roofs, foundations, lift pits and subways.

Advantages

- Waterproof and vapour-proof
- Suitable for waterproofing basements grades 2,3 and 4 as defined in BS 8102 1990 'Protection of Structures against Water From the Ground'.
- 2 mm Nominal thickness
- Fabric reinforcement - High puncture resistance and dimensional stability
- Peel-off selvage - enables clean dry jointing of bitumen to bitumen edge laps of consistent width
- Excellent bond to substrate
- Will resist hydrostatic head of up to 30 m when fully supported

Description

Proofex 12 is a cold applied, self adhesive sheet waterproofing membrane consisting of a tough, damage resistant, polyester fabric reinforcement sandwiched between two layers of polymer modified bitumen. It has a carrier film on the upper surface to assist in handling, and a peel off selvage strip providing a bitumen to bitumen bond at the edge laps. The adhesive surface is protected by a release paper which is removed before application.

Design criteria

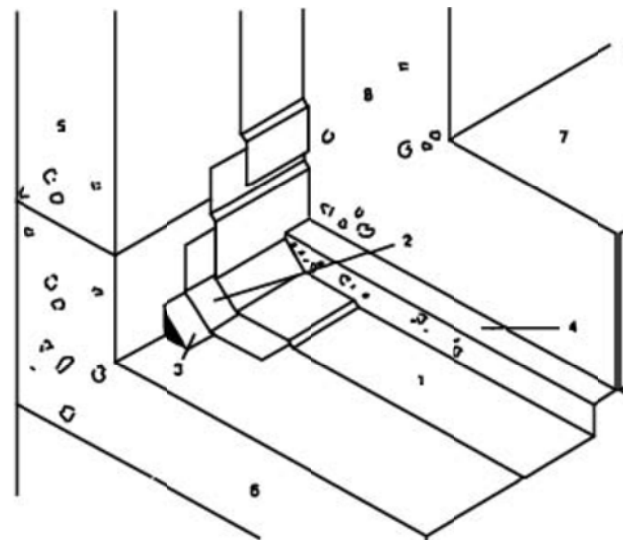
The Proofex 12 membrane should be protected using Proofex Protection Board in vertical and horizontal applications, or a sand/cement screed for horizontal applications prior to further construction. Proofex Protection Board should be spot bonded to the Proofex 12 membrane using Seelastrip PIB500.

As an enhanced drainage protection board, Proofex Sheetdrain can be bonded to Proofex 12 membranes using Seelastrip PIB500.

Where Proofex 12 is being used as a floor DPM there should be continuity with wall DPCs and other DPMs used in the structure.

Proofex Primer may be omitted where Proofex 12 is to be used as a DPM to a horizontal slab beneath Proofex Protection Board or a sand/cement screed.

Example of internal tanking detail is shown below.



1. Proofex 12
2. Proofex 12 reinforcement strip
3. Proofex Angle Fillet
4. Proofex Protection Board or 50 mm screed
5. External concrete wall
6. 75 mm min. concrete floor slab
7. Internal structural concrete floor
8. Internal structural concrete wall

Proofex 12 membranes should be laid in accordance with the provisions of BS:8102.1990.

All wall/floor intersections and internal/external angles should be reinforced with 300 mm wide strips of Proofex 12 membrane. Where practicable a 25 mm chamfer should be provided to all external angles prior to the application of the reinforcement strip.

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Maintenance

There are no special requirements, however any damage should be repaired by exposing the damaged area, cleaning the surface and applying a patch of Proofex 12 over the damaged area extending 300 mm past the edge of the damage.

Properties

Properties	Test method	Typical value
Moisture vapour transmission rate (75% RH/25°C)	ASTM E 96	0.41 g/m ² /24 hrs
Puncture resistance	ASTM E 154	minimum 600 N 25mm
Adhesion to self	ASTM D 1000	4.0 N/mm
Adhesion to primed concrete	ASTM D 1000	4.0 N/mm
Application temperature	Standard	5°C to 50°C

Specification clauses

1. Supplier specification

Waterproof membrane, where shown on the drawing, shall be Proofex 12, fabric reinforced, self adhesive membrane obtained from Fosroc Ltd. Proofex 12 shall be applied in accordance with the current technical datasheet.

2. Performance specification

Waterproof membrane where shown on the drawing, shall be 2 mm thick, fabric reinforced, self adhesive membrane with a peel off selvedge and minimum puncture resistance of 600N. The membrane shall be applied in accordance with the manufacturers current technical data sheet.

Application instructions

Surface preparation

All concrete surfaces must be wood float or shutter finish, free from cavities and projections. All damaged concrete shall be made good.

Brick and block surfaces shall be sound and all mortar joints flush pointed. Rough brick or open textured blocks shall be made smooth with a sand/cement render.

All surfaces must be clean, dry and free from dirt, frost, mould release agents and curing compounds.

Priming

Apply Fosroc Proofex Primer by brush. Ensure complete coverage and allow to dry. Very porous brick, block and rendered surfaces may require extra coats of Fosroc Proofex Primer. Only prime an area to which the Proofex 12 can be applied the same day.

Note: Fosroc Proofex Primer may be omitted where Proofex 12 is to be used on horizontal slabs as a damp proof membrane beneath a protective screed.

Angles and corners

Fosroc Proofex Angle Fillet strips should be used at all walls to floor junctions. The Fosroc Proofex Angle Fillet should be fixed using 6 mm beads of Fosroc Plastiseal applied to the vertical and horizontal faces approximately 30 mm away from the junction.

Internal and external corners should incorporate Fosroc Proofex corner pieces which should be fixed using Fosroc Plastiseal as an adhesive.

All internal and external angles should be reinforced with a 300 mm wide strip of Proofex 12. Where possible a 25 mm x 25 mm chamfer should be provided to external angles.

Vertical application

- i Proofex 12 should be applied to ensure that all end laps are weathered.
- ii Cut Proofex 12 to length allowing an extra 150 mm for each end lap.
- iii Starting at the top of the wall, offer up the Proofex 12 to the tack coated surface. Remove the release paper from the start of the piece. Progressively peel back the release paper and press the membrane firmly into position working from the centre outwards to expel all trapped air.
- iv To obtain a weathered lap it may be necessary to retain the last 500 mm of release paper on the piece. Only when the next drop or corner detail is being completed, remove this remaining piece of release paper and smooth down onto the underlying Proofex 12.

The next roll or length should be aligned against the previously applied piece allowing for the 75 mm (or as specified) edge lap and 150 mm end lap. The selvedge release film should be removed immediately prior to the lap being made.



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Horizontal application

- i Unroll the complete roll of Proofex 12 and align edge with a chalk line.
- ii Load one end and half way along the membrane to maintain alignment. Roll up the other half working back towards the midpoint.
- iii Carefully make a cut across the release paper only of the rolled up Proofex 12. Take care not to cut through the membrane.
- iv Ease the release paper away from the bitumen compound and start to unwind the roll by a steady pull on the release paper.
- v As the roll unwinds, press the Proofex 12 firmly onto the surface using a broom, working from the centre outwards to expel all trapped air.
- vi Repeat this process with the second half of the roll.

The next roll or length should be aligned against the previously applied piece allowing for the 75 mm (or as specified) edge lap and 150 mm end lap.

All edges and laps should be rolled to ensure proper contact and bond of the laps. All overlaps on vertical and slopping surfaces must be weathered.

Damaged areas of Proofex 12 must be repaired with a minimum 300 mm X 300 mm patch to ensure there is at least 150 mm overlap of Proofex 12 all around the damaged area.

If work is continued from one day to the next, all exposed edges must be sealed by rolling to prevent water penetration.

Limitations

Proofex 12 is not a load bearing DPC material. Where membrane continuity is required through a wall, Proofex 12 should be lapped onto the edges of a suitable DPC material. Proofex 12 should not be used in situations subject to fuel or oil spillage or in soils heavily contaminated with fuel oils or solvents.

Estimating

Proofex 12

Thickness	: 2.0 mm
Roll width	: 1 m
Roll length	: 15 m
Roll weight	: 30.0 kg
Edge laps	: 75 mm

Storage

Proofex 12

Shelf life	: 12 months
Storage conditions	: Stored vertically in cool, dry conditions

Note: In accordance with Commercial or Health & Safety requirements packaging detail may alter. Please contact your local Fosroc office for detail.

Precautions

Health and Safety

Proofex 12 Membrane: There are no known health hazards associated with Proofex 12 in normal use. However the wearing of suitable gloves is recommended.

If Proofex Primer is swallowed, do not induce vomiting - drink a glass of water. If contact with eyes occurs, flood with copious amounts of clean water for at least 15 minutes and seek medical advice. If on the skin, remove any contaminated clothing and wash skin thoroughly.

For further information, please consult Material Safety Data Sheets for the above products. Fire Proofex Primer contains volatile, flammable solvents. Do not smoke in the presence of these products. Use only in ventilated areas, well away from any ignition source.

Flash Point

Proofex Primer	: >38°C
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Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of 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 of information given by it.

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