Expoband One

constructive solutions

Flexible expansion joint membrane

Uses

Expoband One is a Flexible Polyolefin (FPO) membrane system which is designed to be bonded over expansion and movement joints in structures to prevent the passage of water. It is bonded in position using Nitobond PC40, two-part epoxy adhesive.

Advantages

- Adhesion to most common building materials.
- Accomodates continuous and pronounced cyclic movement.
- Excellent resistance to weathering.
- Can be applied to dry or damp surfaces.

Description

Expoband One is an un-reinforced Flexible Polyolefin (FPO) membrane available in 1mm & 2mm thickness and widths of 100mm, 150mm and 200mm and 20 metre length.

When longer lengths are required Expoband One can be joined by hot welding. It is bonded to the structure on both sides of the joint using Nitobond PC40 two-part epoxy adhesive.

Technical Data

Fosroc offers a comprehensive range of high performance, high quality technical products. In addition Fosroc offers a technical support package to specifiers and contractors which includes computer-aided design (CAD), standard details as well as on-site technical advice from staff with unrivalled experience in the industry.

Maintenance

There are no special requirements, however any damage should be repaired by exposing the damaged area, cleaning the surface and replacing the strip.

Properties

Form	: Elastomeric Strips
Colour	: Light Grey
Density	: 0.95 g/cm^3
Tensile Strength (DIN EN 12311-2 Method B)	: 12.5N/mm^2
Elongation at break	: 400%
Adhesion to concrete	: >tensile strength of substrate with Nitobond PC40 (DIN EN 12311-2 Method B)
Water vapour permeability	: 2.7g/Sqm/day (DIN EN 1931-Method B)

Specification clauses

Where indicated on the drawings, joints shall be sealed with Expoband One flexible expansion joint membrane system supplied by Fosroc. Expoband One shall be installed strictly in accordance with the manufacturer's instructions.

Application instructions

Joint preparation

Expansion joints must be packed with a firm, consolidated filler board prior to laying the Expoband One. If necessary joints may be pre-sealed using a elastomeric sealant. Ensure that any sealant used is capable of accommodating the anticipated joint movement.

Surface preparation

Concrete surfaces onto which the Expoband One is to be laid must be sound, frost and dust free. New concrete must be fully cured and free from curing compound. The concrete surface ideally should be wood float finished for the width of Expoband One and free from irregularities, with well deigned arises and no vertical misalignment between each side of the joint.

Prepare a suitable width of substrate slightly wider (20-30mm) than the membrane width selected. Sharp protrusion should be ground.

Remove all dirt, dust and laitance by rigorous wire brushing , abrasive blasting or grinding. Any spalling or honeycombing must be repaired prior to the application of the Expoband One system. Should the substrate be wet, dry gently with a gas torch or hot air blower. Dampness should not reappear within 15 minutes for the substrate to be considered as being dry enough for the application of the Nitobond PC40.

Priming of concrete

Priming of concrete is not required with the Nitobond PC 40/ Expoband One system.

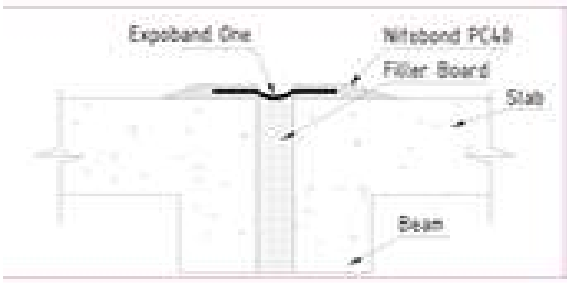
Preparation of the membrane

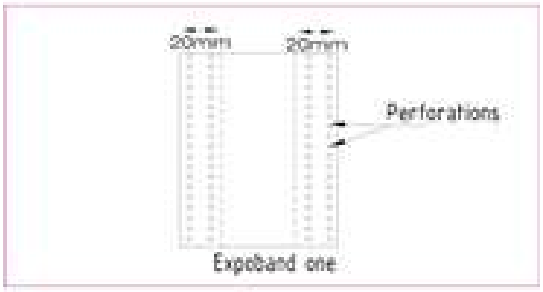
This operation is vital to the adhesion and performance of the Expoband One system. Measure and cut the length of Expoband One to suit the joint. The Expoband One, Flexible Polyolefin (FPO) membrane must be prepared thoroughly by wiping both.

Expoband One

Application of membrane

Expoband One Membrane should be ideally placed in a loop form in the expansion joint so as to facilitate the movement in the joint. The loop should be preferably 40% extra of the expansion joint width





Mixing and application of the adhesive

Transfer the entire contents of Part B of Nitobond PC40 into the Part A container and mix thoroughly using a slow speed drill and Fosroc paddle stirrer for 4 minutes, to scrape down the sides of the container. When mixed the adhesive should be a uniform grey colour.

Use masking tape at extremities and along centre line of joint. Apply mixed Nitobond PC40 using a serrated spreader. Remove central masking tape immediately and position Expoband One membrane into the Nitobond PC40 adhesive.

Roll firmly to displace trapped air and to ensure extrusion of Nitobond PC40 through the edge.

Apply second layer of Nitobond PC40 on the edges to have proper bonding of Expoband One with nitobond PC40. Finally remove outer edge masking tapes and feather edge the Nitobond PC40.

Jointing the Expoband One membrane

The surfaces to be jointed must be clean and wiped with Fosroc Nitoflor Sol prior to jointing. For heat welded joints, a 100 mm overlap should be used. Welding is carried out using a proprietary hot air welding tool.

The faces of the overlap are heated by moving the welding tool along the joint and, simultaneously, pressure should be applied by roller to the heated overlap to ensure that the faces are fused together. After application the Expoband One system should be allowed to cure for 7 days at 27°C.

Ancillary materials and equipment

- Fosroc Nitoflor Sol
- Slow speed drill and Fosroc paddle stirrer
- Adhesive spreader with 2 to 3 mm serrations
- Hot air welding gun and roller

Limitations

Joint layouts incorporating Expoband One should be kept as simple as possible to allow for site joints to be restricted to straight butt joints. Avoid complex changes of angle or skew giving rise to difficulty in jointing and installation.

Estimating

Supply

Expoband One	20m x 100mm x 1mm 30m x 100mm x 1mm
	20m x 150mm x 1mm 30m x 150mm x 1mm
	20m x 150mm x 2mm 30m x 150mm x 2mm
	20m x 200mm x 1mm 30m x 200mm x 1mm
	20m x 200mm x 2mm 30m x 200mm x 2mm
	1mm x 400mm x 20m
	2mm x 400mm x 20m
	2mm x 600mm x 20m

Expoband One

Coverage

Nitobond PC40 : Approx.1.63m²/pack at 2mm thickness

The coverage mentioned is theoretical . Due to wastage factors and the nature of substrates, practical coverage figures may vary.

Storage

Expoband One should be stored in original unopened packaging in cool dry conditions, away from sunlight.

Precautions

Health and Safety

Expoband One

There are no known hazards associated with this product in normal use.

Fire

Fosroc Nitoflor Sol is flammable. Do not expose to naked flames or other sources of ignition. No Smoking. Containers should be tightly sealed when not in use. In the event of fire, extinguish with CO_2 or foam.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- Waterproofing membranes & waterstops
- Joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials.

Fosroc additionally offers a comprehensive package of products specially designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings.

Fosroc Chemicals (India) Pvt. Ltd.

Head Office
Embassy Point, No. 150,
2nd Floor, Infantry Road,
Bangalore 560 001,
Karnataka.

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.

telephone	fax	e-mail
+91 80-42521900	+91 80-22281510	enquiry.india@fosroc.com

Regional Offices

Chennai
Hills Centre,Old No 5,
New No 9, 3rd Cross Street,
Jeth Nagar, Raja Annamalaipuram,
Chennai 600 028.
Ph: 9500064795

Mumbai
MBC Park, 12th floor, Office No.12B,
'D' Block, Near G Corp/Hyper City
Kasarwadawali, Ghodbunder Road,
Thane (West) 400 615
Ph: +91 22 6229 6800

Noida
Unit No. 601, Highway Tower-II
A-13/2, 6th Floor, Sector– 62
Gautam Buddha Nagar,
Noida 201 309, Uttar Pradesh
Ph: +91 120 6121900
Fax: 0120-4270622

Kolkata
304, Jodhpur Park
Kolkata 700 068
Ph:+91 33-65343188
Fax: 033-2499-0278

www.fosroc.com