Fosroc Colpor 200PF

constructive solutions

Cold applied, high performance, pitch free, polyurethane pavement joint sealant

Uses

For the sealing and maintenance of joints in concrete roads, concrete runways and hard standings. The excellent fuel resistance of Colpor 200PF makes it particularly suitable for sealing areas where fuel and oil spillage might occur such as:

- Aircraft fuelling areas
- Oil terminals
- Garage forecourts
- Parking and cargo areas
- Docks and harbours
- Warehouses

Advantages

- Pitch free - environmentally friendly
- Cold applied - no heating equipment required
- Resistant to hydrocarbons like:- Fuel, oil and hydraulic Fluid
- Self-levelling
- Tough rubbery seal
- High performance - less maintenance
- High movement accommodation

Standards compliance

Colpor 200PF complies with U.S. Federal Specification SS-S-200E:1984 and British Standard 5212:1990 - types N, F and FB.

Description

Fosroc Colpor 200PF cold applied, pitch free, two part polyurethane sealant is designed for joints in concrete paved areas.

The capability of accommodating cyclic movements is retained by Colpor 200PF throughout extremes of temperature conditions.

Colpor 200PF is resistant to hydrocarbons like fuel, oil and hydraulic fluid spillage, will not harden in cold weather nor become excessively soft or pick up in hot conditions. Colpor 200PF has high durability and long service life which significantly reduces maintenance costs.

Specification

Where so designated on the drawing, joints are to be sealed using Fosroc Colpor 200PF pitch free, pavement sealant manufactured by Fosroc to BS 5212: 1990 and to U.S. Federal Specification SS-S-200E:1984. Joints shall be prepared and the sealant mixed and applied in accordance with the manufacturer's current data sheet.

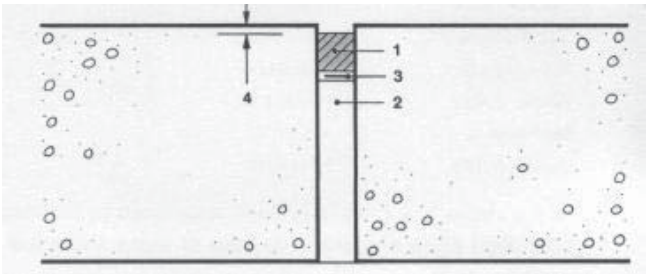
Design Criteria

Colpor 200PF has a movement accommodation factor of 25% in butt joints. In designing joint spacing and dimensions, consideration should be given to the likely uneven distribution of movement.

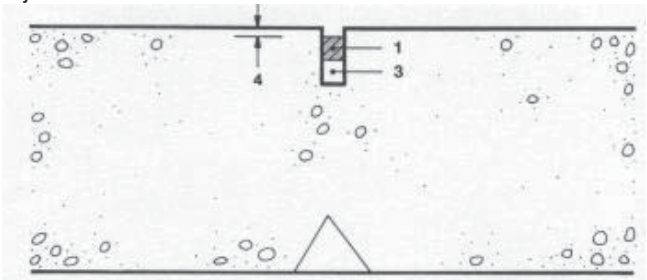
To ensure the sealant operates within its stated movement capacity of 25%, the width of sealing slots should be designed in accordance with the recommendations of BS 6093. In trafficked areas the expansion joint width should not generally exceed 30 mm - for wider joints consult local Fosroc office.

Joint depth: In trafficked areas the sealing slots should be constructed so that at no time during the anticipated operating cycle of the joint will the sealant protrude above the surface of the concrete pavement. It is necessary to recess the level of the sealant 5 to 8 mm below the pavement surface, dependent on the time of year and temperature prevailing at the time of sealing.

Example of a sealed expansion joint in a concrete pavement subject to traffic is shown below:



Example of a sealed contraction joint in a concrete pavement subject to traffic is shown below:



1 Colpor 200PF
2 Hydrocell or other compressible joint filler
3 Bond breaker/backing strip
4 Recess
5 Crack inducer

The width to depth ratio of the Colpor 200PF seal should be 1:1 to 1½:1 subject to a minimum 10 mm depth of sealant (example, contraction joint: 15 mm wide x 13 mm depth; expansion joint: 25 mm wide x 20 mm depth).

Properties

Form	:	Two part compound Base compound: viscous liquid Curing agent: liquid
Colour	:	Black
Movement Accommodation Factor (BS 6093)	:	Butt joints 25%
Physical or chemical cure	:	Chemical cure
Setting time	:	After 10 to 16 hours @ 35°C Colpor 200PF will be tack free and can accept traffic.
Application temperature	:	To avoid unacceptably prolonged cure times, do not apply at temperatures below 5°C.
Hardness shore 'A' at 25°C	:	15 ± 5
Solids content	:	100%
Mixed Density	:	1.35 kg/litre

Chemical resistance to occasional spillage:

Aviation fuels	:	resistant
Hydraulic fluids	:	resistant
Skydrol	:	resistant
Kerosene	:	resistant
Petrol	:	resistant
Diesel fuels	:	resistant
Synthetic oils	:	resistant
Mineral oils	:	resistant
White spirit	:	resistant
Mid alkalis	:	resistant
Dilute acids	:	resistant

All the above properties have been determined by laboratory controlled tests and are in excess of those expected in practice.

Nevertheless, success in use will be determined by the implementation of good housekeeping practices.

Instructions for use

Joint preparation

Joint sealing slots in concrete should be accurately formed and must be dry, sound, clean and frost free. Remove all dust and laitance by grit blasting or grinding. Avoid polishing the joint sides when grinding. The prepared sealing slot should be blown out with dry, oil-free compressed air.

Ensure that any expansion joint filler is tightly packed in the joint and at the required depth to provide the seal dimensions specified. Before sealing, insert a bond breaker caulked tightly into the base of the sealing groove to prevent the sealant from adhering to the base of the slot.

Priming

Prime concrete sealing slot surfaces with Primer No. 20 or Primer 7E using a clean dry brush. Colpor 200PF must be applied when the Primer No. 20 or Primer 7E has become tacky but not wet.

Typically this is between 30 minutes and 2 hours after priming, depending on climatic conditions. If the primer film has become tack free, the surfaces must be reprimed before applying the sealant.

If the primed areas are left unsealed overnight the primer film must be removed by grit blasting or grinding and the joint interfaces reprimed. Therefore, avoid priming more work than can be sealed within the time-scales above. Avoid over application of Primer as this may cause puddles of primer to lie at the base of the sealing slot.

For sealing asphalt surfaces use Nitoflor FC130, this must be allowed to dry before continuing. Then the Nitoflor FC130 is over primed with P7E or P20. If asphalt is less than four months old undertake pull off adhesion tests, if the results are satisfactory (consult Fosroc) then proceed.

Mixing

Drain totally the contents of the tin containing the curing agent into the large base component tin. Using a hand held, slow speed drill (400 to 500 rpm) fitted with a Fosroc paddle blade stirrer, mix for approximately one minute, stop the mixer and scrape around the top of the tin to remove any remaining curing agent. Continue mixing for a further 3 minutes until the material is thoroughly mixed.

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Application

When mixed, the sealant may be loaded into a Fosroc GX Gun after removing the nozzle and cap and pulling back the plunger rod. The nozzle cap is then replaced ready for application. In wider joints of 25 mm and above, the mixed sealant may be poured directly from the tin by bending the side to form a pouring lip. Apply mixed sealant into the sealing slot so that the finished level of the seal is recessed below the trafficked surface as specified.

BS 5212:1990 Pt 2 sets out a code of practice for the application and use of joint sealants for concrete pavements.

Cleaning

Clean equipment immediately after use with Fosroc Solvent 102*†. Remove mixed Colpor 200PF from the hands with 'Keroclense 22', 'Swarfega' or similar industrial hand cleanser.

Ancillary materials

Primer 7E
Primer No. 20
Fosroc Solvent 102
Sealant Mixing Paddle MR2
Fosroc GX Gun
(Nitoflor FC130)

Limitations

Primer No. 20 and Primer 7E are not compatible with bituminous surfaces. For situations where Colpor 200PF could come into contact with pavement asphalt (for example, in a transition joint between concrete and asphalt pavements), use Nitoflor FC130, refer to Priming. If in doubt contact local Fosroc office.

Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Estimating

Supply

Colpor 200PF**	:	5 litre packs
Primer No. 20	:	500 ml packs
Fosroc Solvent 102	:	5 litre
Primer 7E	:	500 ml cans

** 20 litre packs are also available subject to a minimum order. Contact your local Fosroc office for recommendations on mixing, application and other requirements.

Guide to Colpor 200PF quantities

Joint size (w:d)	Litre per meter	Meter per in mm 5.0 litre pack
10 x 10	0.100	50.00
13 x 13	0.169	29.58
15 x 15	0.225	22.22
20 x 15	0.300	16.66
20 x 20	0.400	12.50
25 x 20	0.500	10.00
25 x 25	0.625	8.00
30 x 25	0.750	6.66

1 litre of Primer No. 20 will be sufficient for 20 litres of Colpor 200PF, independent of joint size.

These are theoretical yields. No allowance has been made for variations in joint dimensions or wastage.

Storage

Colpor 200PF: 12 months in original containers stored in cool, dry conditions, i.e. not exceeding 25°C. Storage above this temperature may reduce shelf life.

Precautions

Health and safety

Colpor 200PF, Primer No. 20, Primer 7E and Fosroc Solvent 102 may cause sensitisation by inhalation and skin contact. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide additional skin protection. Should accidental skin contact occur, remove immediately with a resin removing cream, followed by soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advise. Use only in well ventilated areas.

For additional information see relevant Product Safety Data Sheet.

Fire

Primer No. 20,Primer 7E and Fosroc Solvent 102 are 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.

Flash Point

Primer No. 20	:	30°C
Fosroc Solvent 102	:	33°C
Primer 7E	:	23°C

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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 specifically 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

For further information on any of the above, please consult your local Fosroc office - as below.

*** Denotes the trademark of Fosroc International Limited**

† **See separate data sheet**

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 Service. **All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.**

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ISO 9001 / ISO 14001
OHSAS 18001
BUREAU VERITAS
Certification

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