

Fosroc® Colpor 200PF

constructive solutions

Cold applied, high performance, pavement joint sealant conforming to the requirements of BS EN 14188-2:2004 and BS5212 Part1:1990

Uses

For the sealing and maintenance of joints in concrete roads, concrete runways and hard standings. Colpor 200PF is particularly suitable for sealing areas where fuel and oil spillage might occur such as aircraft hardstanding areas, oil terminals, garage forecourts, parking and cargo bays.

Advantages

- High durability and long service life
- High movement accommodation
- Cold applied — no heating equipment required
- Fuel, oil and hydraulic fluid resistance
- Jet blast resistant

Description

Colpor 200PF is a two component cold applied pouring grade joint sealant for pavement joints. It is flow applied into the joint either directly from the can or using a sealant gun.

Colpor 200PF retains its movement accommodation of 25% on butt joints throughout the extremes of temperature, it does not harden in cold weather nor become excessively soft, or pick up in hot conditions.

Colpor 200PF is resistant to jet blast and is suitable for concrete runways and hardstandings.

Colpor 200PF is suitable for areas where fuel spillage is likely.

In trafficked areas the maximum expansion joint width should not exceed 30 mm, wider joints are likely to suffer mechanical damage. It is necessary to recess the level of the sealant 5 to 8 mm below the pavement surface, the depth is dependent on the season and temperature at the time of sealing. Additional protection for the joint aris can be provided by chamfering the top edge.

The width/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).

Standards compliance

BS EN 14188-2:2004. Joint fillers and sealants. Specifications for cold applied sealants: Two component (M) / self levelling (sl type)/ Class B, C and D.

British Standard 5212: Part 1: 1990 Cold applied joint sealant systems for concrete pavements. Specification for joint sealants— types N, F and FB.

U.S. Federal Specification SS-S-200E : 1993. Sealants joint, two component, jet blast resistant, cold applied for portland cement concrete pavement

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EN 14188-2:2004 Joint fillers and sealants - Part 2: specification for cold applied sealants	
Cold applied joint sealant System: Type: Class: Polymer base:	Two-component (M) Self levelling (sl-type) Class B, C and D Polyurethane
Bonding strength: At 23°C At -20°C	Tensile modulus at 100% extension ≥ 0.15 MPa ≤ 0.6 MPa
Cohesion: Cold climate tensile modulus @ -30°C	≤ 1.0MPa No adhesive or cohesive failure
Resistance to deformation Elastic recovery	≥ 70%
Durability of watertightness against chemicals: Change in mass Change in volume	≤ 25% / no increase ≤ + 30%
Durability of cohesion against liquid chemicals	No adhesive/ cohesive failure
Artificial weathering by UV irradiation	≤ + 20%
Resistance to flame	No flow, cracking, flaking, hardening, ignition

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Properties

The following results were obtained at a temperature of 20°C unless otherwise stated.

Test method	Standard	EN 1504 R4 Requirement	Test result
Bonding Strength	EN 28340	At 23°C ≥ 0.15MPa At -20°C ≤ 0.6MPa	0.36 MPa no failure 0.53 MPa no failure
Cohesion for cold climate	EN 14187-9	@-30°C ≤ 1.0 no failure	0.24 MPa no failure - concrete 0.26 no failure - asphalt
Elastic recovery	EN ISO 7389	≥ 70%	94 %
Adhesion/cohesion properties after immersion in liquid chemicals	EN 14187-6	no failure	Pass Class B, C & D Test Fuel I, Test Fuel II, Jet A1, Glycol, Formate and Acetate based de-icers
Change in mass and volume after immersion in liquid chemicals	EN 14187-4	Change in mass ≤ - 25% by mass ≤ + 30% by volume	Test Fuel II - Complies Urea - Complies NaCl/ KCl - Complies Potassium - Complies Acetate - Complies Diesel - Complies
Artificial weathering by UV radiation	EN 14187-8	≤ 20% change in modulus at 100% extension	- 8%
Resistance to flame	EN 14147-7	Pass/Fail	Pass - No flow, cracking, flaking hardening or ignition
Solids content	-	-	100 %
Shore "A" hardness	-	-	15 + / - 5
Movement Accommodation Factor (MAF)	-	-	25%
Colour	-	-	Black
Setting time: Pot life @ 20°C Tack free @ 20°C Full cure @ 20°C Full cure @ 25°C	- - - -	- - - -	60 minutes 16 - 24 hours 7 days 3-4 days
Application temperature	-	-	> 5°C

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

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Application instructions

Joint preparation

Joint sealing slots in concrete should be accurately formed and must be dry, sound, clean and free from frost. Remove all dust and loose material 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. When resealing all traces of previously applied sealant should be removed.

The base of the joint should be tightly packed with a joint backing cord, Expandafoam, which should be placed to ensure the correct joint profile is produced. If the joint is not deep enough to accept Expandafoam a debonding tape should be inserted into the base of the joint. Ensure the correct joint profile is obtained.

Priming

Concrete joint faces should be primed with Fosroc Primer 19 or Primer 20.

Primer 19

Empty the entire contents of the Primer 19 hardener tin into the base tin, and replace base tin lid. Mix thoroughly by shaking tin for 2 minutes. Prime the joint face using a clean dry brush. Avoid over application of primer causing puddles in the bottom of the joint. Colpor 200PF should be applied between 30 minutes and 4 hours after priming. If the joint is not sealed overnight the primer film should be removed by grit blasting and the joint reprimed.

The mixed Fosroc Primer 19 should be applied within one working day. Do not split packs of Fosroc Primer 19.

Primer 20

Decant sufficient primer into a clean dry tin for the days usage. Do not return unused primer to the supply tin at the end of the day. Prime the joint faces with a thin uniform coat of primer and allow solvent to evaporate before sealing. This takes between 30 minutes and 2 hours depending on climatic conditions. If sealant is not applied within 2 hours the joint face should be reprimed.

Where concrete joints are exposed or subject to conditions of prevailing damp or where the concrete is unusually dense or porous the use of Primer 19 is recommended. Contact the local Fosroc office for further details.

Mixing

Drain totally the contents of the curing agent tin into the large base component tin. Using a hand held, slow speed drill (300 to 500 rpm) fitted with a Fosroc Sealant Mixing Paddle, mix for 1 minute. Stop and scrape around the top of the tin to remove any remaining curing agent. Continue to mix for 3 minutes until the material is thoroughly mixed.

In cold weather, Colpor 200PF mixes more easily if stored overnight at room temperature.

Application

Pour mixed sealant into a Fosroc G Gun after removing the nozzle end cap, pulling back the plunger rod. Replace end nozzle and gun into prepared joint. In 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 so that the finished level of the seal is recessed below the trafficked surface as specified.

Cleaning

Clean equipment immediately after use with Fosroc Equipment Cleaner.

Estimating

Packaging

Colpor 200PF is supplied in cartons containing 2 x 5 litre units, each comprising a tin of base and a tin of curing agent.

For machine application Colpor 200PF is available in 20 litre units. Where a fast cure machine sealant is required refer to Nitoseal 888 data sheet.

Primer 19 is supplied in a 750ml pack

Primer 20 is supplied in 0.5 and 5 litre packs.

Estimating

Colpor 200PF quantities

Joint size in mm	Litre per metre	Metre per 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

Primer quantities

Linear Metres of joint per pack of primer

Joint depth mm	Primer 19	Primer 20	
	750 ml pack	0.5 litre pack	5 litre pack
10	600 - 675	300	3000
15	400 - 450	200	2000
20	300 - 340	150	1500
25	240 - 270	120	1200
30	200 - 225	100	1000



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Limitations

For the sealing of industrial floor joints, higher modulus sealants such as Nitoseal MS600 or Expoflex 800 (see separate data sheets) are recommended.

Colpor 200PF is not compatible with bituminous surfaces. Where Colpor 200PF could come into contact with pavement asphalt, please contact the local Fosroc office for advice.

Service life may not exceed 5 years in extremely hot climates where ambient temperatures exceed 40°C for more than 3 months per annum or continuous sunshine prevails throughout the day during these periods.

Do not apply when substrate temperature is 5°C and falling.

Storage

Store Colpor 200PF in original containers in cool, dry conditions i.e. not exceeding 25°C. Storage life in these conditions is 12 months. Storage above this temperature may reduce storage life.

Precautions

Health and safety

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

Fire

Colpor 200PF is non-flammable

Fosroc Primer 19, Fosroc Primer 20 and Fosroc Equipment Cleaner are flammable. Keep away from sources of ignition. No smoking. In the event of fire extinguish with CO₂ or foam. Do not use water jet.

Flash points

Fosroc Primer 19	
Part A	36°C
Part B	29°C
Fosroc Primer 20	30°C
Fosroc Equipment Cleaner	44°C

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