



constructive solutions

Nitoproof® 120

Bituminous protective compounds

Uses

Nitoproof 120 is designed to provide a continuous waterproof barrier. Used in conjunction with Nitoproof 120 will provide a dry film thickness complying with BS 8102 for concrete protection and waterproofing. Nitoproof 120 can be used for repairs to felt/asphalt roofs.

Advantages

- Asbestos free
- Single component
- Easily and inexpensively applied
- Resistant to most naturally occurring chemicals
- Odourless and taint free when dry
- Excellent flexibility
- Used for over 30 years in a wide range of environments
- Excellent adhesion to most common building substrates

Standards compliance

Nitoproof 120 complies with ASTM D1227:1995, Type 2 : Class 1.

Nitoproof 120 complies with ASTM C 309 water retention properties, when applied at a rate of 2.5m²/litre.

Description

Nitoproof 120 is based on selected bitumens that are blended together with non-asbestos reinforcing fibres to provide an outstanding liquid grade material used for intermediate thickness coating. When dry Nitoproof 120 produces quality, high film build flexible bitumen coating.

Technical support

Fosroc offers a comprehensive range of high performance, high quality repair, maintenance and construction products. In addition, Fosroc offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the world.

Properties

Solids content	: approx. 55%
Specific gravity @ 20°C	: 1.0
Flexibility (BS3416)	: Pass

Drying time : 4-8 hours @ 20°C for thickness up to 0.5mm. Drying times will be longer for lower temperatures and higher thicknesses.

Chemical resistance : Resistant to water, aqueous salt solutions, common detergent solution, mild mineral acid and alkali solutions. Not resistant to organic solvents.

Instructions for use

Preparation

All surfaces must be clean and dry and all loosely adhering particles such as rust, mill scale, mortar, cement laitance etc should be carefully removed by wire or stiff brushing and finally soft brushing to remove dust.

Surfaces must be free from oil and grease. In the case of cementitious surfaces, oil and grease can be removed with proprietary chemical degreaser and in the case of steelwork, oil or grease should be removed by Nitoflor Sol*.

Surfaces to be treated with Nitoproof 120 coating should always be primed with Nitoproof 110.

Application

Stir well until homogeneous. Nitoproof 120 can be applied by brush, roller or spray equipment.

Below Ground

Apply Nitoproof 110 as a prime coat onto the prepared substrate. Apply Nitoproof 120 evenly over the dry primed surface.

Economy roof membrane for non-critical areas

For low cost roofing application, the roof slab should be at least 28 days old, the surface prepared by priming with Nitoproof 110.

Cracks will be highlighted as the bitumen coating dries and when completely dry, should be dealt with by applying 1 coat of Nitoproof 120 over the cracks at 1mm thickness, 50mm either side. Nitoproof Scrim* reinforcement should then be embedded into the Nitoproof 120 then overcoated with a second coat of 1mm w.f.t..

Nitoproof® 120

Vertical upstands should be coated with Nitoproof 120 after the Nitoproof 110 primer has dried and turned down onto the deck for 75mm (over a 20x20mm sand/cement fillet).

When the Nitoproof 120 applied to the upstands has dried, Nitoproof 120 should then be applied to the whole roof area at a w.f.t. of 1mm (1 litre / m²) overcoating all preparatory work.

Protection boards should be employed to protect Nitoproof 120 from foot traffic damage when applied on horizontal surfaces. Extra care should be taken when Nitoproof 120 is exposed to direct sunlight.

After 7 days the whole roof area should be coated with Nitoprime 32 followed by Nitoproof Reflectacoat** solar reflective coating. Care should be taken not to damage the membrane whilst the Nitoproof Reflectacoat is being applied.

After a further 3 days a second application of Nitoproof Reflectacoat should be applied. For accessible roofs subject to regular foot traffic or for fully insulated roofs, please consult Fosroc for advice.

Cleaning

Clean all tools and equipment with Nitoflor Sol.

Limitations

Application should not commence if the temperature of the substrate is below 6°C or above 45°C.

Storage

Shelf life

6 months if kept in original unopened containers.

Storage conditions

Store under normal warehouse conditions in original unopened containers away from direct sources of heat and naked flames. Do not cover with tarpaulin other than for trucking purposes.

Estimating

Supply

Nitoproof 120	: 20 and 200 litre drums
Nitoproof 110	: 20 and 200 litre drums
Nitoproof Scrim	: 1000 mm (w) x 50 m (l)

Coverage

Nitoproof 120	: 1.0-2.5m ² /litre/coat
Nitoproof 110	: 2.0-7.0m ² /litre per coat depending on substrate porosity/smoothness

Precautions

Health and safety

Remove spillages from skin with soap and water or a resin removing cream such as Kerocleanse 22. **Do not** use solvent. Any eye contamination should be washed with copious quantities of clean water and medical treatment sought.

If ingested obtain medical attention. Do not induce vomiting. Avoid prolonged inhalation of the vapour. Ensure adequate ventilation.

For further information, refer to the Product Material Safety Data Sheet.

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INDIA/0815/B



Nitoseal® 200

Low modulus pitch polysulphide joint sealant

Uses

For sealing horizontal movement joints in concrete pavements associated with airfields, motorways, bridge-decks, car parks, warehouses and industrial flooring. Particularly suitable for areas subject to fuel and chemical spillage.

Advantages

- Low modulus and highly resilient
- Excellent flexibility and movement tolerance
- Prolonged life due to high age hardening resistance
- Resistance to penetration of stones and hard debris.
- Good resistance to chemicals and hydrocarbon fuels.
- Self levelling to produce uniform and neat joints
- Primer provides outstanding adhesion even to damp concrete.

Description

Nitoseal 200 is a black two part pitch extended polysulphide based joint sealant which cures to form a low modulus durable and elastic seal. The material is self levelling and can be poured directly into horizontal joints.

When cured, Nitoseal 200 forms a highly resilient seal which can accommodate large cyclic movements over a wide range of ambient temperatures. Used in conjunction with Primer 4 it has tenacious adhesion, even to damp concrete.

Nitoseal 200 is supplied as a two part material comprising base and hardener, in preweighed quantities ready for onsite mixing and use.

Technical support

Fosroc offers a comprehensive range of high performance, high quality construction products. Fosroc offers on-site technical advice from staff with unrivalled experience in the industry at locations all over the world.

Design criteria

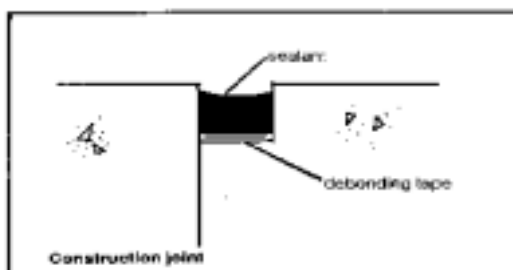
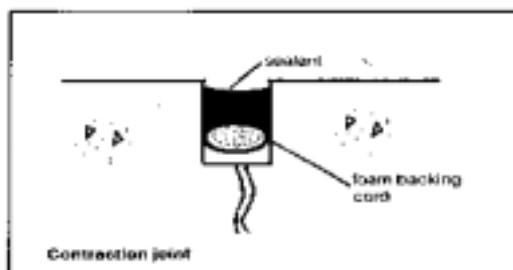
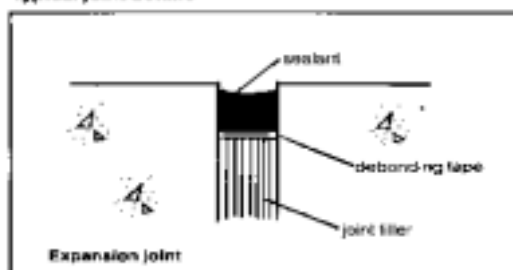
Nitoseal 200 has a movement accommodation factor of 25% in butt joints. In designing joint spacing and dimensions, the possibility that the expected movement will not be evenly distributed will need to be considered.

To ensure that the sealant operates within its stated movement capacity of 25%, the width of the sealing slots should be designed in accordance with the recommendations of BS 6093. In trafficked areas the maximum expansion joint width should be limited to 30mm.

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 sealants 5mm to 8mm below the pavement surface dependent on the time of year and the temperature prevailing at the time of sealing.

The width/depth ratio of the Nitoseal 200 seal should range between 1:1 and 1 1/2 : 1 subject to a minimum 10mm depth of sealant (example, contraction joint : 6mm wide x 10mm depth; expansion joint : 25mm x 20mm depth)

Typical joint details



Standards and specifications

Nitoseal 200 complies with BS 4254 - 83 and BS 5212 - 90

Nitoseal® 200

Properties

Specific gravity	: 1.65
Shore Hardness	: 10±2
Movement accommodation factor	: 25%
Service temperature range	: - 30°C to +70°C
Min. Application temperature	: +5°C
Tack free time	: 12-36 hours depending upon cure conditions.
Chemical resistance of	: Resistant to spillage fuels, lubricants and hydraulic fluids.
Pot life (Time min)	: 20 °C 30 °C 40°C 150 90 60

Application instructions

Joint preparation

Joint surfaces must be clean, dry and sound. Arris repairs should be affected using a Fosroc epoxy based repair mortar, depending upon end use application.

Porous surfaces

Remove all dirt, surface laitence, contaminants or residual joint formers from all joint faces by power wire brushing, grinding, sand or grit blasting. All joints shall be blown out using dry, oil free compressed air.

Non porous surfaces

If lacquers, oils or other contaminants are present, prepare surfaces by wiping with Nitoflor Sol and abrading if appropriate.

The correct width/depth joint profile may be achieved by the installation of Foam backing cord or the correct joint filler. Where foam backing is not used, debonding tape must be placed on the bottom of the joint to prevent adhesion to the joint base. To obtain neat straight edged seals, masking tape should be applied down either edge prior to priming.

Priming

The sides of the joint must be primed using Primer 4 which must be allowed to dry completely prior to the application of the sealant.

If joints are not sealed within 2 hours at 35deg.C, they must be reprimed prior to sealing.

Mixing

The two components of Nitoseal 200 are supplied in the correct proportions. Add the entire contents of the hardener component into the base container and thoroughly mix together for three minutes using a slow speed drill (400 to 500 rpm) fitted with a Fosroc mixing paddle. Ensure any settlement is thoroughly dispersed.

The sides of the container should then be scraped down to ensure that any unmixed components do not remain. Mixing should then continue for a further 2 minutes.

Total mixing time

The temperature of the components at mixing should not be below 5 deg.C. In cold weather, it is advantageous to warm the components by prior storage in a heated room.

Application

After thorough mixing, crimp the rim of the can to form a spout and pour directly into the prepared joint to the specified level. Narrow joints are more conveniently filled using a pavement gun.

Care should be taken to avoid air entrapment when pouring or gunning the Nitoseal 200 into the joint. In wider joints the entrapped air is released by rodding the sealant with a steel spatula.

Strip off any masking tape used along the joint edges as soon as application is completed.



Nitoseal[®] 200

Cleaning

Uncured Nitoseal 200 can be cleaned off using Nitoflor Sol. Cured sealant can only be removed mechanically.

Estimating

Nitoseal 200 - No. of litres required =

$$\frac{\text{Joint width (mm)} \times \text{Sealant depth (mm)} \times \text{Joint length(m)}}{1000}$$

A further amount should be allowed for possible wastage.

Packaging

Nitoseal 200 : 4 kg (approx. 2.40 litres)

Primer 4 : 0.125kg

Nitoflor Sol : 5 and 20 litres

Storage

The shelf life of Nitoseal 200 and Primer 4 is 6 months when stored in the original unopened containers at ambient temperatures below 25°C.

Precautions

Health and Safety

Avoid skin contact with Nitoseal 200, Nitoflor Sol and Primer 4. The hardener components of Nitoseal 200 is toxic. Avoid ingestion and wash off with soap and water immediately on any contamination on the skin. Gloves should be worn and the use of barrier creams is strongly recommended. Solvents should not be used for cleaning the hands, but an industrial cleaner such as Reebaklens followed by washing with soap and water. Wash any eye contamination with plenty of water and seek immediate medical advice. Ensure adequate ventilation when working.

Fire

Primer 4 and Nitoflor Sol contain flammable solvents. Do not use near open flames nor smoke during use.

Flash points

Primer 4 : 10°C

Nitoflor Sol : 33°C

Additional information

In addition to joint sealants, Fosroc manufactures a wide range of complementary products which includes waterproofing membranes, concrete admixtures, grouting anchoring, repairs, protective coatings and specialised flooring materials.



Nitoseal® 200



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Continued FOC 8001 by





constructive solutions

Nitoseal® 215(I)

Two-part polysulphide elastomeric sealant

Uses

For sealing expansion and construction joints between structures and elements in building construction - curtain wall and glazing systems; infill panels, metal to concrete joints, window frames and surrounds; metal finishings and building surfaces; sill and frame unions.

Description

Nitoseal 215(I) is a two-part, gungrade polysulphide sealant for filling and sealing joints in building construction. It is elastic, weather-resistant, non-sagging and water-tight with outstanding adhesion to practically all surfaces when used with the correct primer.

Supplied in a composite pack containing the Base sealant and Hardener in pre-measured quantities.

Colour : Grey

Standards compliance

Nitoseal 215(I) conforms to BS 4254.

Technical Support

Fosroc provides technical advisory service supported by teams of specialists in the field.

Properties

Pot life	2-3 hours
Cure time @ 25°C	2 weeks
Service temperature range	- 30°C to + 80°C
Movement accommodation factor	25%
Shore-A Hardness	15 - 20
Specific gravity	1.6

Priming / adhesion

Nitoseal 215(I) adheres to the following substrates pretreated with Nitoseal Primer.

Nitoseal Primer

For concrete, plaster, asbestos cement, sand blasted steel, wood, cement renders, plain and anodised aluminium, chromium, smooth steel, vitreous enamel, glass, ceramic, salt glazed pipes, zinc coated steel.

Joint Design

Joint movement should not exceed the movement accommodation factor.

Recommended dimensions

Minimum depth of seal	-	6mm
Joint width		Joint depth
Upto 10mm		6mm
10 to 20mm		at least 10mm
Over 20mm		half width

The minimum width and depth of weather exposed expansion joints should be 10mm.

Preparation

Deep joints should be back filled with a non-rotting backup material to which the sealant does not adhere e.g., Nitoseal foam backing, or closed cell polyethylene foam, which should be tamped into the joint to the required depth.

Remove all grease dust and other foreign matter and clean joint faces with Nitoflor Sol.

Bonding surfaces must be DRY and SOUND.

In order to obtain neat straight-edged seals, joint edges should be masked with self-adhesive tape.

Brush on primer where required.

Nitoseal Primer : Apply liberally and leave 1/2 - 1 hour before applying Nitoseal 215(I).

Mixing

Nitoseal 215(I) is supplied in a single pack, the base and hardener being contained in the same tin. Remove the lid and carefully scrape all the hardener and add to the base tin.

Using mixing paddle fitted to a low speed (400 / 500 rpm) electric drill, mix the two components together for atleast 2 minutes. The inside of the tin should then be scraped with a flat-bladed tool, to ensure that unmixed components do not remain around the sides. Mixing should then be continued for a further 2 minutes.

Application instructions

Using the single hole follower plate provided, fill the mixed material into a barrel gun or catridges and install in the prepared joint.

The exposed surface of the installed Nitoseal 215(I) should be tooled with a joint shaping tool wetted with water to force the sealant into the joint to ensure full contact with the bonding faces and to provide the correct contour.

Strip off masking tape immediately after tooling.

Note : In view of widely varying site conditions, it is

Nitoseal® 215(I)

recommended that product suitability and material consumption be determined by prior tests.

Estimating Quantities

Nitoseal 215(I)

Not allowing for wastage, consumption can be calculated as follows :

Square section joints :

Joint width (mm) x joint depth (mm) x joint length (metres)

1000

= total number of litres required.

Nitoseal Primer

Exact calculations cannot be given due to varying joint dimensions and substrates. The following average figures are given for guidance only and are based on general experience.

100 linear meters in 1cm deep point per litre.

Cleaning

Uncured Nitoseal 215(I) can be cleaned off with Nitoflor Sol.
Cured Nitoseal 215(I) can only be removed mechanically.

Storage

Nitoseal 215(I) and Nitoseal Primer have a shelf life of 6 months when stored in a dry place under cover.

Packing

Nitoseal 215(I) : 0.63 & 1.89 litre composite pack containing base and hardener.



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INDIA/0801/B

Nitoseal Primer : 200ml pack
Nitoflor Sol : 5 and 20 litre packs

Precautions

Health & Safety

Skin contact with Nitoseal 215(I), Nitoseal Primer and Nitoflor Sol should be avoided and the use of barrier creams is recommended before and after work. Solvent should not be used for cleaning the hands. but an industrial cleaner followed by washing with soap and water.

The hardener component of Nitoseal 215(I) is a lead compound. Any direct skin contamination with the hardeners should be washed off immediately with soap and water. Ensure adequate ventilation when working with these products and do not smoke during use.

Fire

Nitoseal Primer and Nitoflor Sol contain flammable solvents. Ensure adequate ventilation and do not use near naked flame.

Flash points

Nitoseal Primer : 23°C
Nitoflor Sol : 33°C

Additional information

The Fosroc range of associated products includes high strength cementitious grouts, epoxy grout, polyester resin based mortar for rapid presetting of steel shims to level or for direct bedding of small base plates; Resin Anchoring systems for same day anchoring of bolts in drilled holes in concrete or rock. Also available a range of products for use in construction; viz. admixtures, curing compounds, release agents, flooring systems and repair mortars.

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constructive solutions

Nitoseal® 280

Heavy duty epoxy urethane joint sealant

Uses

For sealing internal floor joints subject to heavy industrial use in factories, food processing areas, warehouses and maintenance facilities. Particularly suitable for sawn joints in long strip flooring and other large internal areas.

Advantages

- Load bearing for support of arrises under heavy wheel load
- Good resistance to chemicals and hydrocarbon fuels
- Excellent adhesion without primer to dry clean concrete
- Pouring grade ensures ease of placing
- Suitable for use in wide joints
- Self levelling to produce uniform and neat joints

Description

Nitoseal 280 two-part pouring grade sealant is formulated from a blend of epoxy and urethane polymers. The mixed sealant is self levelling and can be poured directly into horizontal joints to form a tough resilient seal possessing a limited degree of flexibility.

Nitoseal 280 is available in a range of attractive colours with a separate colour pack providing visual mixing control.

Design Criteria

Joints should be designed so that total movement due to concrete shrinkage and thermal change does not exceed the 10% movement accommodation factor related to the joint width. We would recommend that joints to be sealed with Nitoseal 280 are left till the final stages of construction when internal temperatures have stabilised and initial concrete shrinkage has taken place. The bulk of concrete shrinkage will take place within the first 28 days therefore sealant works should be delayed for this minimum period.

Joint Width (mm)	Sealant Depth (mm)
6-12	Equal to width
12-25	12-20
Over 25	1/2 to 3/4 width

Properties

Movement accommodation

factor : 10%

Cure time	@ 20°C	@ 35°C
Initial	: 24 hours	12 hours
Full	: 3 days	2 days
Application temperature	: +5°C to 45°C	
Service temperature	: -10°C to 70°C	

Specific gravity	: 1.31
Shore 'A' hardness	: 60-80
Chemical resistance	: Good resistance to most common mineral acids, alkalis, petroleum based fuels and steam.

Specification

Joints shall be sealed where designated using Nitoseal 280, epoxy urethane sealant manufactured and supplied by Fosroc. The sealant shall be applied strictly in accordance with the manufacturer's current technical data sheet.

Instructions for use

Joint preparation

Joint surfaces must be clean, dry and free from laitence dust or any other foreign matter. All dry residual dust from joint cutting operations should be completely removed using a rotary power brush, dry abrasive blasting or other approved means. Blow all joints clean using dry oil free compressed air.

When required foam backing cord should be a firm closed cell grade. Debonding tape should be used in the base of all joints except where foam backing cord is used.

Where a neat finish is required, masking tape should be applied down each side of the joint prior to the start of the sealant works, it should be removed immediately after the sealant works are complete.

Priming

Priming is not normally required when using Nitoseal 280 in dry, sound, well prepared joints, or joints which have been reformed using a Fosroc resin based repair mortar. Where optimum adhesion is required or where joints may be totally immersed in water, Nitoprime 25 should be used.

Mixing

The components of Nitoseal 280 are supplied in the correct mixing ratio. Add the entire contents of the colour pack and hardener component into the base container and mix together thoroughly for three minutes using a slow speed drill (300 to 500 rpm) fitted with a mixing paddle. Ensure any settlement is thoroughly dispersed.

The sides of the container should then be scraped down to ensure that any unmixed components do not remain. Mixing should then continue for a further 2 minutes.

Nitoseal® 280

Application

The mixed Nitoseal 280 can be poured directly from the mixing container by compressing the sides to form a pouring lip. Pour into the prepared joint to the required level, should the joint width prohibit direct pouring from the container, the mixed material can be poured into a Sealant gun and applied to the joint.

It may be necessary after a few minutes to top up the level of the sealant after it has flowed into all joint irregularities. Finally, strip of any masking tape that may have been used

Cleaning

Clean tools immediately after use with Nitoflor Sol. Clean hands with a proprietary hand cleaner.

Limitations

Nitoseal 280 is not intended for use in vertical joints, for further advise contact the Technical Department.

Technical support

Fosroc offers a comprehensive range of high performance, high quality construction products. Fosroc offers on-site technical advice from staff with unrivalled experience in the industry at locations all over the world.

Estimating

Supply

Nitoseal 280	:	4.0 litre pack
Nitoprime 25	:	1.0 and 4.0 litre pack

Guide to sealant quantities

Number of litres required =

$$\frac{\text{Joint width (mm)} \times \text{sealant depth (mm)} \times \text{joint length (m)}}{1000}$$

Coverage

Nitoprime 25 :	100 Lm @ 10mm joint depth
----------------	---------------------------

Storage

6 months in original containers stored in cool dry conditions i.e. not exceeding 25°C. Storage above this temperature may reduce storage life.

Precautions

Health and safety

Some people are sensitive to epoxy resins so gloves and a barrier cream are recommended to be worn when handling these products. If contact with the resin occurs it must be moved before it hardens followed by washing with soap and water do not use solvent. In the event of contact with the eyes irrigate liberally with clean cold water and seek medical advise.

Fire

Nitoflor Sol and Nitoprime 25 are flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO₂ or foam. Do not use a water jet.

Flash points

Nitoprime 25	:	29°C
Nitoflor Sol	:	33°C

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INDIA/0815/C

Nitoseal® MS50



constructive solutions

One part, general purpose building sealant

Uses

Nitoseal MS50 is suitable for sealing joints in Concrete, Brickwork, Blockwork, Perimeter sealing around doors and windows, Non-trafficked floor joints.

Advantages

- Excellent adhesion to most common building materials
- Single component with fast rate of cure
- Easy to apply at low temperature
- Can be applied to damp substrates
- Environmentally friendly
- Primer-less for most applications (see "Priming")
- Available in a range of colours (see "Properties")
- Isocyanate free technology

Description

Nitoseal MS50 is a one part, medium modulus sealant based on hybrid silyl modified polyether technology.

Specification

Where shown on the contract documents, the one part sealant shall be Nitoseal MS50 supplied by Fosroc. It shall provide good UV protection and have a movement accommodation factor of 20%.

Properties

Form	Smooth, non-slumping paste
Flash point	>65°C
Colour	White, Grey, Black, Portland Buff, Rustic Red, Brown
Movement accommodation factor	20%
Skinning time (@20°C / 50% RH)	30 minutes
Cure rate (@20°C/50% RH)	
24 hours	: 3mm
48 hours	: 6mm
72 hours	: 8mm
Application temperature	: 5 - 50°C
Typical hardness (Shore A at 27°C)	: 45
UV resistance	: Good

Instructions for use

Preparation

Joint surfaces must be clean dry and free from all dirt, laitance, loose material and foreign matter. Remove all rust, scale and protective lacquers from metal surfaces. Removal can be achieved by rigorous wire brushing, grinding or grit blasting.

Joints in concrete should preferably be sawn. After sawing all saw slurry must be flushed away and the joint allowed to dry.

When resealing, the existing sealant should be removed from the joint and the arris cleaned back to sound clean concrete. All debris should be removed.

Any expansion joint filler must be checked to ensure it is tightly packed and no gaps or voids exist at the base of the sealing slot before positioning a bond breaker.

The use of a bond breaker is not required in expansion joints containing cellular polyethylene joint filler such as Hydrocell XL*†. For construction or contraction joints, a bond breaker tape or back-up strip must be used.

Where a particularly neat finish is required, mask the face edges of the joint before sealing and remove immediately after tooling is completed.

Priming

In joints where limited movement is expected, a primer is not normally required. In joints subject to high movement or intermittent immersion during service, Fosroc Primer MS1 is recommended.

Prime the joint face using a clean, dry brush. Avoid over application of primer causing puddles in the bottom of the joint.

Nitoseal MS50 should be applied between 30 minutes and 4 hours after priming. If a joint is left unsealed for more than 4 hours, the primer should be removed by grit blasting or grinding and the joint reprimed. Please contact your local Fosroc representative for any clarifications on priming.

Application

Cut the end off the sachet and place in the Fosroc GX gun. Fit the nozzle and cut at 45° at a suitable size for sealing the joint. Extrude the sealant firmly into the joint.

Tool flush within 5 minutes of application to ensure good contact between the sealant and the substrate.

Cleaning

Clean tools immediately after use with Nitoflor Sol.

Nitoseal® MS50

Estimating

Supply

Nitoseal MS50 : 10 no x 600ml sachets per box.
Fosroc Primer MS1 : 200ml packs

Guide to sealant quantities

Joint size in mm	Litre per metre run	Metre per 600ml sachet
6x10	0.060	10.00
12x10	0.120	5.00
20x20	0.400	1.50
25x12	0.300	2.00
30x15	0.450	1.33
40x20	0.800	0.75

0.5 litres of Fosroc Primer MS1 will be sufficient for 60m of joint. No allowance has been made for joint dimensions or wastage .

Limitations

- For continuous water immersed conditions, use Nitoseal MS600
- For trafficked floor joints, use Nitoseal MS300
- Not suitable for contact with Bituminous materials.
- Not suitable for contact with solvents, oil or petrol.
- Overcoating of the sealant will reduce the MAF of the sealant.

Storage

When stored in warehouse conditions below 35°C, Nitoseal MS50 will have a shelf life of 12 months.

Precautions

Health and safety

Nitoseal MS50 is considered safe in normal use. However, as with any material, good hygiene practices should be followed, i.e. keep out of eyes, do not consume, keep away from children and pets, wash hands thoroughly after use.

Fire

Nitoseal MS50 is non flammable while Fosroc Primer MS1 is flammable. Please refer to the Material Safety Data Sheet for details.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- cementitious & epoxy grouts
- specialised flooring materials

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

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INDIA/0845/A



Nitoseal® MS600

One part, civil engineering sealant for immersed conditions

Uses

Nitoseal MS600 is suitable for sealing movement joints in buildings and civil engineering structures including joints that will be subject to intermittent or permanent immersion.

Typical applications include:

- Reservoirs
- Sewage tanks
- Sea walls
- Basements
- Subways
- Parapets
- Bridges
- Superstructures
- Swimming pools

Advantages

- Approved for use in contact with potable water
- Meets key international standards
- Resistant to aerobic and anaerobic bacteriological attack
- Exhibits excellent water resistance
- Excellent resistance to dilute acids and alkalis
- Cures to a tough, elastic rubber seal
- Accommodates continuous and pronounced cyclic movement
- High resistance to ageing, reduces physical damage due to climatic extremes
- Single component yet fast rate of cure
- Can be applied to damp substrates
- Isocyanate free technology

Description

Nitoseal MS600 is a one part medium modulus sealant based on hybrid silyl modified polyether technology. It has a fast rate of cure and forms a tough, highly durable and water resistant elastomer. Conforms to the DWI Water Quality Regulations 25(1)(b) for products having a small surface area in contact with water for public supply.

Properties

Form : Smooth, non-slumping paste

Solids content : 100%

Colour : Grey, Portland stone
For other colours contact Fosroc for further Information

MAF (Movement) : 25% butt joints
50% lap joints

Skinning time at

20 C / 50% RH : 30 minutes

Cure rate at 24 hours: 3mm

20 C / 50% RH : 48 hours: 6mm

72 hours: 8mm

Application

Temperature : 5°C to 50°C

Service : Dry : -30°C to +80°C

temperature : Wet: up to 60°C

Hardness shore 'A' : 32
(@ 20°C)

Chemical resistance : Resistant to occasional spillage many chemicals.

Biological resistance : Nitoseal MS600 has been evaluated in microbiologically active situations and has been shown to have resistance to aerobic and anaerobic conditions

UV resistance : Excellent

Standards compliance

Nitoseal MS600 is approved for use in contact with potable water and meets the requirements of BS6920.

Conforms with the performance criteria of BS4254 (1991) and ASTM C920-94: type S, grade NS, Class 25 and ASTM C793 after accelerated weathering.



Nitoseal MS a name you'll want to stick with.

Nitoseal® MS600

Design criteria

Nitoseal MS600 should be applied to joints between 5 and 35mm wide. Joints which are expected to experience cyclic movements should be designed to an optimum width : depth ratio of 2:1, subject to the overriding recommended minimum sealant depths set out below: 5mm for metals, glass and other non-porous surfaces; 8mm for all porous surfaces; 20mm for joints subject to hydrostatic pressure.

To ensure that the sealant remains within its stated movement capacity (25% MAF), sealing slot widths should be designed in accordance with the recommendations of BS 6093.1993. The Movement Accommodation Factor is a figure quoted indicating the ability of a sealant to accommodate joint movement throughout the service life of that sealant, expressed as a percentage of the joint width at time of sealing.

To calculate the theoretical minimum joint width knowing the expected maximum working movement of the joint:

$$W = \frac{M}{MAF/100} + M$$

W = Joint width

M = Expected maximum working movement of joint

MAF = Movement Accommodation Factor of that sealant

Instructions to use

Preparation

Joint surfaces must be clean, dry and free from frost. Remove all dirt, laitance, loose material and foreign matter. Remove all rust, scale and protective lacquers from metal surfaces. Removal can be achieved by rigorous wire brushing, grinding or grit blasting.

Joints in concrete should preferably be sawn. After sawing, all saw slurry must be flushed away and the joint allowed to dry.

When resealing, the existing sealant should be removed from the joint and the arris cleaned back to sound clean concrete. All debris should be removed.

Any expansion joint filler must be checked to ensure it is tightly packed and no gaps or voids exist at the base of the sealing slot before positioning a bond breaker.

The use of a bond breaker is not required in expansion joints containing cellular polyethylene joint filler such as Hydrocell XL or Expandafoam. For construction or contraction joints a bond breaker tape or back-up strip should be used.

Where a particularly neat finish is required, mask the face edges of the joint before sealing and remove immediately after tooling is completed.

Priming

Fosroc Primer MS2 is required for joints that are to be intermittently or permanently immersed or where the substrate is likely to be saturated.

When using a primer, empty the entire contents of the hardener tin into the base tin and replace the base tin lid. Mix thoroughly by shaking for at least 2 minutes. Prime the joint face using a clean, dry brush. Avoid over application of primer causing puddles in the bottom of the joint.

Nitoseal MS600 should be applied between 30 minutes and 2 hours after priming.

If a joint is left unsealed for more than 2 hours, the primer should be removed by grit blasting or grinding and the joint re-primed.

Do not split packs of Fosroc Primer MS2.

Application and finishing

Cut the end off the sachet and place in the Fosroc GX gun. Fit the nozzle and cut at 45 degrees at a suitable size for sealing the joint.

Extrude the sealant firmly in to the joint. Tool flush within 5 minutes of application to ensure good contact between the sealant and the substrate.

Cleaning

Clean tools immediately after use with Fosroc Equipment Cleaner. Clean hands with a proprietary hand cleaner.

Limitations

- Should not be applied at temperatures below 5°C
- Not suitable for contact with bituminous materials
- Not suitable for contact with solvents, oil or petrol
- Whilst Nitoseal MS600 has excellent adhesion to many types of residual sealant, its use should not be considered a substitute for a good standard of joint preparation
- Should be fully cured prior to immersion.



Nitoseal® MS600

Estimating

Supply

Nitoseal MS600	:	10 no x 600ml sachets per box
Fosroc Primer MS2	:	200 ml packs

Guide to quantities

Joint size	Litres per metre run	Metre run per 600 ml sachet
6 x 10	0.06	10.00
12 x 10	0.12	5.00
20 x 20	0.40	1.50
25 x 12	0.30	2.00
30 x 15	0.45	1.33

0.2 litres of Fosroc Primer MS2 will be sufficient for 25m of joint. No allowance has been made for joint size or wastage.

Precautions

Health and safety

Nitoseal MS600 is considered safe in normal use. However, as with any material, good hygiene practices should be followed i.e. keep out of eyes, do not consume, keep away from children and pets and wash hands thoroughly after use.

Storage

Shelf life 12 months.

Storage conditions

Store in original packaging in cool, dry conditions. Storage outside of these conditions may reduce shelf life.



Nitoseal® MS600



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INDIA/0846/A



constructive solutions

Supercast® SW10

Swellable waterstop for in-situ concrete

Uses

Integral sealing for construction joints in concrete cast in-situ.

Convenient and problem solving in situations where a conventional waterstop would require complex shutting.

Typical uses include secant piled and diaphragm walled basements, pile caps and casting against old concrete.

Supercast SW10 can provide simple solutions to detailing pipe entries, construction joints in the vertical plane and to kicker joints.

Advantages

- Easy to install
- Supercast SWX swellable adhesive enables full intergration of Supercast SW10 and Supercast PVC networks
- Solves detailing problems in conjunction with Supercast PVC range
- Swelling properties unaffected by long term wet/dry cycling
- Sustains effective seal in wet conditions
- Delayed swell action allowing extra tolerance on site

Standards

Suitable for use in contact with potable water - Water Byelaws Scheme Approved product.

Description

Supercast SW10 is a swellable waterstop that can be installed and positively linked into conventional Supercast PVC waterstop networks.

This allows the use of Supercast PVC for expansion joints and Supercast SW10 for construction joints, all the time maintaining an intergrated network.

Supercast SW10 is made from high performance synthetic elastomeric strips. The swelling action is the result of contact between water and hydrophilic groups which are part of the Supercast SW10 'Basic polymer' molecular structure.

The hydrophilic groups are not subject to extraction or loss of swelling performance by prolonged or repeated wetting. This is a unique feature of the basic polymer. Expansion of the waterstop creates a positive pressure against the face of the concrete joint, thus preventing water passing through the protected joint.

Design criteria

Supercast SW10 should be used to prevent the passage of water through non-movement joints in both new in-situ concrete and between new and existing concrete.

Supercast SW10 increases in volume in the range of upto 300% and gives a resistance to hydraulic heads of upto 30 meters.

Swelling of Supercast SW10 in fresh concrete is minimal and most of the volume swell takes place after the initial setting of the concrete has taken place.

Supercast SW10 is suitable for application between existing and newly placed concrete where there is complete steel continuity.

Supercast SW10 waterstops should be positioned to ensure a minimum of 75mm cover of concrete to accommodate pressure developed during the swelling process.

Properties

Form	Black Rectangular section elastomeric strips
Size	5mm x 20mm
Solid content	100%
Unrestrained volumetric expansion	upto 300%
Application temperature range	-20° to 50°C
Service temperature range	-30° to 70°C
Hydrostatic pressure resistance	30 meters (3 bar)

Specification

Supplier Specification

Water swellable - Basic polymer - hydrophilic waterstop (and attachments) where shown on the drawings, shall be Fosroc Supercast SW10 obtained from Fosroc. It shall be used in accordance with the manufacturer's current application instructions.

Supercast® SW10

Performance Specification

Water swellable - Basic polymer - hydrophilic waterstop, where shown on the drawings, shall be made from a performed elastomeric strip that can integrate into existing waterstop networks. It shall be free from rubber, bentonite and other inclusions. The waterstop shall have an unrestrained volumetric expansion of upto 300%. It must deteriorate under prolonged wet/dry cycling. It must be able to withstand a hydrostatic head of 30 meters (3 bar). It shall be used in accordance with the methods given in the manufacturer's current datasheet.

Instructions for use

Supercast SW10 may be positioned by bonding with either Supercast SWX or Supercast SW adhesive. The waterstop may be installed either into a groove cast in the concrete or directly onto the concrete surface. Nailing may also be used provided that rough surfaces are filled with Supercast SWX.

Limitations

Supercast SW10 should not be used for expansion joints or those subject to significant repetitive movements.

Supercast SW10 should not be installed with less than 75mm of concrete cover to ensure that the pressure arising from the swelling action is accommodated.

Supercast SW10 should not be used in locations that allow free unrestrained swelling.

Estimating

Supply

Supercast SW10 is supplied in 15m rolls

Supercast SW10 should be stored in cool dry conditions, away from sunlight, in the original, unopened containers. Supercast SW10 has a shelf life of 12 months.

Precautions

Health & Safety

There are no health hazards associated with Supercast SW10 in normal use.

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.

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

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constructive solutions

Nitoseal® 280

Heavy duty epoxy urethane joint sealant

Uses

For sealing internal floor joints subject to heavy industrial use in factories, food processing areas, warehouses and maintenance facilities. Particularly suitable for sawn joints in long strip flooring and other large internal areas.

Advantages

- Load bearing for support of arrises under heavy wheel load
- Good resistance to chemicals and hydrocarbon fuels
- Excellent adhesion without primer to dry clean concrete
- Pouring grade ensures ease of placing
- Suitable for use in wide joints
- Self levelling to produce uniform and neat joints

Description

Nitoseal 280 two-part pouring grade sealant is formulated from a blend of epoxy and urethane polymers. The mixed sealant is self levelling and can be poured directly into horizontal joints to form a tough resilient seal possessing a limited degree of flexibility.

Nitoseal 280 is available in a range of attractive colours with a separate colour pack providing visual mixing control.

Design Criteria

Joints should be designed so that total movement due to concrete shrinkage and thermal change does not exceed the 10% movement accommodation factor related to the joint width. We would recommend that joints to be sealed with Nitoseal 280 are left till the final stages of construction when internal temperatures have stabilised and initial concrete shrinkage has taken place. The bulk of concrete shrinkage will take place within the first 28 days therefore sealant works should be delayed for this minimum period.

Joint Width (mm)	Sealant Depth (mm)
6-12	Equal to width
12-25	12-20
Over 25	1/2 to 3/4 width

Properties

Movement accommodation

factor : 10%

Cure time	@ 20°C	@ 35°C
Initial	: 24 hours	12 hours
Full	: 3 days	2 days
Application temperature	: +5°C to 45°C	
Service temperature	: -10°C to 70°C	

Specific gravity	: 1.31
Shore 'A' hardness	: 60-80
Chemical resistance	: Good resistance to most common mineral acids, alkalis, petroleum based fuels and steam.

Specification

Joints shall be sealed where designated using Nitoseal 280, epoxy urethane sealant manufactured and supplied by Fosroc. The sealant shall be applied strictly in accordance with the manufacturer's current technical data sheet.

Instructions for use

Joint preparation

Joint surfaces must be clean, dry and free from laitence dust or any other foreign matter. All dry residual dust from joint cutting operations should be completely removed using a rotary power brush, dry abrasive blasting or other approved means. Blow all joints clean using dry oil free compressed air.

When required foam backing cord should be a firm closed cell grade. Debonding tape should be used in the base of all joints except where foam backing cord is used.

Where a neat finish is required, masking tape should be applied down each side of the joint prior to the start of the sealant works, it should be removed immediately after the sealant works are complete.

Priming

Priming is not normally required when using Nitoseal 280 in dry, sound, well prepared joints, or joints which have been reformed using a Fosroc resin based repair mortar. Where optimum adhesion is required or where joints may be totally immersed in water, Nitoprime 25 should be used.

Mixing

The components of Nitoseal 280 are supplied in the correct mixing ratio. Add the entire contents of the colour pack and hardener component into the base container and mix together thoroughly for three minutes using a slow speed drill (300 to 500 rpm) fitted with a mixing paddle. Ensure any settlement is thoroughly dispersed.

The sides of the container should then be scraped down to ensure that any unmixed components do not remain. Mixing should then continue for a further 2 minutes.

Nitoseal® 280

Application

The mixed Nitoseal 280 can be poured directly from the mixing container by compressing the sides to form a pouring lip. Pour into the prepared joint to the required level, should the joint width prohibit direct pouring from the container, the mixed material can be poured into a Sealant gun and applied to the joint.

It may be necessary after a few minutes to top up the level of the sealant after it has flowed into all joint irregularities. Finally, strip of any masking tape that may have been used

Cleaning

Clean tools immediately after use with Nitoflor Sol. Clean hands with a proprietary hand cleaner.

Limitations

Nitoseal 280 is not intended for use in vertical joints, for further advise contact the Technical Department.

Technical support

Fosroc offers a comprehensive range of high performance, high quality construction products. Fosroc offers on-site technical advice from staff with unrivalled experience in the industry at locations all over the world.

Estimating

Supply

Nitoseal 280	:	4.0 litre pack
Nitoprime 25	:	1.0 and 4.0 litre pack

Guide to sealant quantities

Number of litres required =

$$\frac{\text{Joint width (mm)} \times \text{sealant depth (mm)} \times \text{joint length (m)}}{1000}$$

Coverage

Nitoprime 25 :	100 Lm @ 10mm joint depth
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Storage

6 months in original containers stored in cool dry conditions i.e. not exceeding 25°C. Storage above this temperature may reduce storage life.

Precautions

Health and safety

Some people are sensitive to epoxy resins so gloves and a barrier cream are recommended to be worn when handling these products. If contact with the resin occurs it must be moved before it hardens followed by washing with soap and water do not use solvent. In the event of contact with the eyes irrigate liberally with clean cold water and seek medical advise.

Fire

Nitoflor Sol and Nitoprime 25 are flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO₂ or foam. Do not use a water jet.

Flash points

Nitoprime 25	:	29°C
Nitoflor Sol	:	33°C

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INDIA/0815/C



constructive solutions

Supercast® SW20

Swellable waterstops for in-situ concrete

Uses

Integral sealing for construction joints in concrete cast in-situ where conventional waterstops are impractical to use because of limited access.

Convenient and problem solving in situations where a conventional waterstop would require complex shuttering

Typical uses include secant piled and diaphragm walled basements, pile caps and casting against old concrete. Supercast SW20 can provide simple solutions to detailing pipe entries, construction joints in the vertical plane and to kicker joints.

Can be linked to Supercast PVC** waterstops to give an effective combination of waterstops which maintain network continuity.

Advantages

- Easy to install by bonding, nailing or casting into joint faces
- Factory made connectors enable full integration of Supercast SW20 and Supercast PVC networks
- Solves detailing problems in conjunction with Supercast PVC range
- Swelling properties unaffected by long term wet/dry cycling
- Tolerant of salts present in concrete and groundwater
- Sustains effective seal in wet conditions

Standards compliance

Suitable for use in contact with potable water - Water Byelaws Scheme Approved product: Listing No. 9312507. Description

The Supercast SW20 is a swellable waterstop which can be installed and positively linked into conventional Supercast PVC waterstop networks.

This allows the use of Supercast PVC for expansion joints and Supercast SW20 for construction joints all the time maintaining an integrated network.

The Supercast SW20 is made from high performance synthetic elastomer strips. The swelling action is the result of contact between water and hydrophilic groups which are part of the Supercast SW20 'Basic Polymer' molecular structure.

The hydrophilic groups are not subject to extraction or loss of swelling performance by prolonged or repeated wetting. This is a unique feature of the basic polymer. Expansion of the waterstop creates a positive pressure against the face of the concrete joint, thus preventing water passing through the protected joint.

Design criteria

Supercast SW20 should be used to prevent the passage of water through non-movement joints in both new in-situ concrete and between new and existing concrete. Supercast SW20 increases in volume in the range of up to 300% and gives a resistance to hydraulic heads of up to 100 metres.

Swelling of Supercast SW20 in fresh concrete is minimal and most of the volume swell takes place after the initial setting of the concrete has taken place.

Supercast SW20 is suitable for application between existing and newly placed concrete where there is little or no steel continuity and therefore some small movement may occur.

Supercast SW20 waterstops should be positioned to ensure that a minimum of 70 mm cover of concrete is present to accommodate pressure developed during the swelling process.

Supercast® SW20

Properties

Form	:	Rectangular section elastomeric strips
Size	:	10mm X 20mm
Solids content	:	100%
Hardness Shore 'A'	:	25 to 35
Unrestrained volumetric expansion	:	Up to 300%
Application temperature range	:	-20° to 50°C
Service temperature range	:	-30° to 70°C
Hydrostatic pressure resistance	:	100 metres (10 bar)

Specification

Supplier specification

Water swellable - Basic Polymer - hydrophilic waterstop (and attachments) where shown on the drawings, shall be Fosroc Supercast SW20 obtained from Fosroc. It shall be used in accordance with the manufacturer's current application instructions.

Performance specification

Water swellable - Basic Polymer - hydrophilic waterstop, where shown on the drawings, shall be made from a preformed elastomeric strip which can integrate into existing waterstop networks. It shall be free from rubber, bentonite or other inclusions. The waterstop shall have an unrestrained volumetric expansion of up to 300%. It must not deteriorate under prolonged wet/dry cycling. It must be able to withstand a hydrostatic head of 100 metres (10 bars). It shall be used in accordance with the methods given in the manufacturer's current data sheet.

Instructions for use

Supercast SW20 may be positioned by bonding an appropriate adhesive. The waterstop may be installed either into a groove cast in the concrete or directly onto the concrete surface. Nailing may also be used.

Full application instructions (Ref: FOS/1522), including the use of the ancillary products, are contained in a separate application leaflet which is available on request.

Limitations

- Supercast SW20 should not be used for expansion joints or those subject to significant repetitive movements.
- Supercast SW20 should not be installed with less than 70 mm of concrete cover to ensure that the pressure arising from the swelling action is accommodated.
- Supercast SW20 should not be used in locations which allow free unrestrained swelling.

Estimating

Supply

Supercast SW20	:	5 m rolls
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Storage

When stored in cool dry conditions, away from sunlight, in the original, unopened containers all products have a shelf life of 12 months.



Supercast® SW20

Precautions

Health and safety

There are no health hazards associated with Supercast SW20 in normal use.

Ancillary materials

Supercast SW20 Connector

A Supercast SW20 component moulded in water swellable elastomeric. It is designed to connect with Supercast Hydrofoil, Supercast Watafoil, and Supercast Rearguard profiles. This connector provides a method of ensuring and maintaining the integrity of a waterstop network, for example, when expansion joints occur.

The connector is push fitted around the outer bulb of the Supercast PVC waterstop. It is then bonded to the concrete and jointed to the rest of the Supercast SW20 strip.

Supercast SW Adaptor

This adaptor has been developed to solve the problem of fixing a waterstop to a diaphragm, or secant piled wall.

The Supercast SW Adaptor combines a water swellable material and a PVC profile. It provides a method of continuously jointing Supercast SW with Supercast Rearguard 'R' at right angles to each other in the same plane. Such junctions occur between diaphragm or secant piled walls, pile caps and floor slabs.

The use of Supercast SW Adaptor simplifies the forming of these critical junctions. Site welding of the Supercast SW Adaptor to the Supercast PVC, followed by butt jointing to the existing SW strips is all that is necessary. This provides a positive connection between the two systems. It eliminates reliance on site workmanship to make complex junctions with epoxy or cementitious mortars.



Supercast® SW20

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.

† See separate data sheet

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constructive solutions

Supercast® SWX

Problem solving gun grade hydrophillic and adhesive

Uses

Supercast SWX can be used as an adhesive for bonding Supercast SW strips or as a problem-solving hydrophillic in difficult access areas including:

- Sealing around joints in precast manhole covers, cable ducts and pipes etc.
- Sealing around precast segments
- Sealing between rough surfaces, e.g. slurry walls and concrete slabs
- Sealing around H-beams and other penetrations through concrete structures
- Sealing around conventional rubber and plastic waterstops to provide 'belt or braces' seal prior to concrete pour.

Advantages

- **Fast curing** : Enables early concrete pour and rapid return to service. Allows hand-applied concrete cover within 2 hours on emergency repairs and large-scale concrete pour after 8 hours.
- **Excellent seal on rough concrete**: Gives improved water tightness. Plugs inequalities in rough concrete to produce a tight seal.
- **Excellent adhesion**: Quick and easy to apply to a variety of damp and uneven joint surfaces remaining firmly in place during concrete pour.
- **Water swellable**: Expands by 200% producing a watertight compression seal.
- **Durable**: Excellent wet/dry cycling retaining elastomeric character and swelling performance due to high tolerance of the cementitious environment.

Description

Supercast SWX is a grey, elastomeric water-swellable paste which is applied like a sealant. The hydrophillic properties of Supercast SWX display good consistency in swell rate during repeated wet/dry cycling. Expansion of the product on contact with water creates a positive pressure against the faces of the concrete joint, thus preventing the passage of water.

Technical Support

Fosroc offers a comprehensive range of high performance, high quality, construction products all backed by a BS EN ISO9001 registered quality scheme. Fosroc offers a technical support package to specifiers and contractors which includes computer-aided design (CAD) standard details and technical advice from staff with unrivalled experience in the industry.

Properties

Form	: Elastomeric water swellable paste
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Colour	: Grey
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Tack-free time	: Approx. 1 hour (@ 20°C/50% RH)
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Hardness Shore 'A'	: 30
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Cure Rate	: 3mm in 24 hours
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Swell Ratio (volume)	: 200%
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Concrete pour	: Allow between 2 to 8 hours (see 'Application instructions')
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Application instruction

Preparation

Remove all obvious loose debris and soil, moss and organic growth from the substrate. Supercast SWX can be applied to damp concrete but always ensure the surface is free from running water and brush away any standing or seeping water. divert running channels away from area before application.

Application

Cut conical top off cartridge end-thread, screw on nozzle and cut to required size. Place Supercast SWX into sealant gun and apply like a conventional sealant. Extrude a bead of not less than 15mm diameter onto the substrate, ensuring that there is no break in the bead.

Return to service

After application, allow 30 minutes before re-establishing any running channels. A minimum of 2 hours (depending on the ambient temperature conditions) should be allowed before applying hand-placed concrete and 8 hours is recommended for large concrete pours where there is no guarantee that concrete will not be poured directly onto the seal. Supercast SWX should be protected from heavy rainfall whilst curing to prevent premature expansion.

Supercast® SWX

Limitations

Supercast SWX should not be used for expansion joining or for joints subject to significant repetitive movements. Supercast SWX should be positioned to ensure that there is a minimum of 70 mm concrete cover to accommodate pressure developed during the swelling process.

Supercast SWX will establish a firm bond to the concrete however, as with any hydrophilic waterstops, care should be taken during concreting to avoid pouring directly onto the seal.

N.B.: Supercast SWX should not be used as a sealant in general building applications.

Estimating

Supply

Supercast SWX	:	310ml gun cartridge
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Coverage

Supercast SWX	:	Approx. 1.5 mts. when gunned to form a constant 16mm diameter bead, per 310 ml cartridge.
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Storage

Shelf life

9 months

Storage conditions

Store in original unopened cartridge and cartons in cool, dry condition

Precautions

Health & Safety

Supercast SWX may cause sensitisation by skin contact. Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. Use only in well ventilated areas.

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.

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