Nitoseal® 200

constructive solutions

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

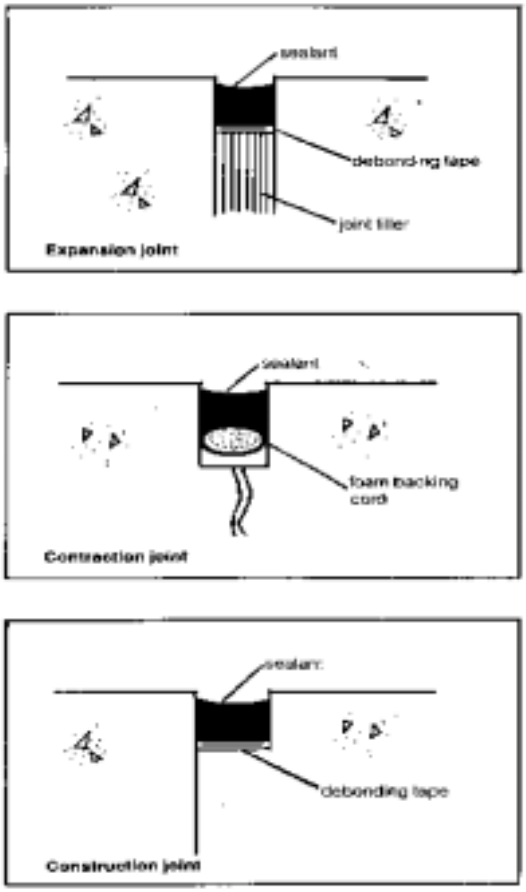
Nitoseal 200 has a movement accommodation factor of 25% in butt joints. In designing joint spacing and dimensions, the possibility that the expected movement will not be evenly distributed will need to be considered.

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 temperture 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	**:** 19
Movement accommodation factor	**:** 25%
Service temperature range	**:** - 30^{0}C to +70^{0}C
Min. Application temperature	**:** +5^{0}C
Tack free time	**:** 12-36 hours depending upon cure conditions.
Chemical resistance	**:** Resistant to spillage of fuels, lubricants and hydraulic fluids.

Pot life	**:** 20 ^{0}C	30 ^{0}C	40^{0}C
(Time min)	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.

Cleaning

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

Nitoseal® 200

Estimating

Nitoseal 200 - No. of litres required =

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

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^{0}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^{0}C

Nitoflor Sol : 33^{0}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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Important note :

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