Nitoseal® 280

constructive solutions

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.

Application

Nitoseal® 280

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 =

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

Coverage

Nitoprime 25 :	100 Lm @ 10mm joint depth

Storage

Twelve 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 CO_2 or foam. Do not use a water jet.

Flash points

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

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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.

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