

Fosroc® Nitoseal MS300

constructive solutions

One part, floor joint sealant

Uses

Nitoseal MS300 is suitable for sealing saw-cut and movement joints in internal floors, and external joints where abrasion resistance is required. It can also be used for external facade joints where a tougher seal is required.

- Factory floors
- Sports stadia terracing
- Shopping centres
- Warehouse and distribution depots
- Concrete hardstanding areas
- Prisons

Advantages

- Suitable for forklift truck traffic
- Suitable for saw cut and perimeter joints
- Abrasion resistant
- Withstands vehicular traffic
- Single component
- Fast rate of cure
- Easy to apply at low temperature
- Can be applied to damp substrates
- Primer-less for most applications (see "Priming" section)
- Hard, but flexible sealant; resists picking and vandalism

Description

Nitoseal MS300 is a one part, high modulus sealant based on hybrid silyl modified polyether technology. It has a rapid rate of cure and forms a tough elastomer capable of supporting heavy wheel loads.

Nitoseal MS300 may be applied between 6mm and 20mm wide, for trafficked joints (up to 40mm non-trafficked). In most cases it is recommended to form a sealing slot with a square cross-section, subject to a minimum 10mm depth. To ensure the sealant operates within its stated movement accommodation capacity the sealing slot widths should be designed in accordance with the recommendations of BS6093.

Standard compliance

ISO11600 Type F 25HM: Classification of sealants for building construction

ASTM D2203-93: Standard test method for staining

BSEN 140-3:1995: Acoustics measurement of sound insulation in buildings

Properties

Nitoseal MS300

Form	Paste
Flash point	>65°C
Colour	Grey For special colours contact Fosroc for further Information
Movement accommodation factor	Butt joints 25% Lap joints 50%
Skimming time at 20°C/50% RH	25 minutes
Cure rate at 20°C, 50% RH	
24 hours	3 mm
48 hours	6 mm
72 hours	8 mm
Application temperature	5°C to 50°C
Typical hardness Shore "A" at 20°C	45
Trafficking time at 20°C	
Light traffic	24 hours
Heavy traffic	4 days
Modulus	High
UV resistance	Excellent
Service temperature range	-20°C to 70°C

Application instructions

Preparation

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. Remove all debris. The joint surfaces must be dry, clean and frost free. Remove all contaminants by rigorous wire brushing, grinding or grit blasting.

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.

Note: The use of a bond breaker is not required in expansion joints containing Hydrocell XL cellular polyethylene expansion joint filler. 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 priming/sealing and remove immediately after tooling is completed.

Fosroc® Nitoseal MS300

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 (for example, externally).

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 MS300 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 re-primed.

Do not split packs of Fosroc Primer MS2.

Application and finishing

Cut end off sachet and place in Fosroc GX Gun. Fit nozzle and cut at 45° to a suitable size. 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 Fosroc Equipment Cleaner.

Estimating

Guide to sealant quantities in traffic joints

Joint size in mm	Litre per metre run	Metre per 600 ml sachet
6 x 10	0.06	10.00
12 x 12	0.144	4.17
20 x 20	0.40	1.50
25 x 20	0.50	1.20
30 x 20	0.60	1.00
40 x 25	1.00	0.60

0.75 litres of Fosroc Primer MS2 will be sufficient for 90m of joint. No allowance has been made for joint size or wastage.

Primer

Joint depth	Metres of joint / 0.75 litres of Fosroc Primer MS2
10mm	500 - 600 metres
15mm	333 - 400 metres
20mm	250 - 300 metres
25mm	200 - 240 metres
30mm	167 - 200 metres

Packaging

Nitoseal MS300 - 600 ml sachets. 10 no. sachets per box.
Fosroc Primer MS2 - 0.75 litre packs

Limitations

- Do not apply at temperatures below 5°C.
- Not suitable for contact with bituminous materials.
- Whilst Nitoseal MS 300 has excellent adhesion to many types of residual sealant its use should not be considered a substitute for a good standard of joint preparation.
- In large joints ensure sealant is sufficiently cured before trafficking. In 40 mm joints this could be up to 10 days.

Storage

Store in original containers in cool, dry conditions. Shelf life is 12 months if stored as above. Storage outside these conditions may reduce shelf life.

Precautions

Health and safety

Nitoseal MS300: This product is non-hazardous in normal use. For further information refer to appropriate Product Safety Data Sheet.

Fosroc Primer MS2 is highly flammable, see Product Safety Data Sheet for details.

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