

Fosroc® Nitoseal MB99

(Formerly known as Fosroc® Pliastic)



constructive solutions

Hot poured rubber bitumen joint sealant

Uses

Used for sealing horizontal movement and construction joints in concrete pavements and floor slabs.

Typical areas include;

- Pavements, roads and traffic surfaces
- Water excluding substructures
- Water retaining structures including reservoir floors and roofs, swimming pool substructures and irrigation canal floors.

Advantages

- An economical sealant for horizontal and inclined joints up to 1 in 20
- Resists dirt and ingress of grit associated with trafficked pavements
- Suitable for sealing joints in potable water tanks
- Good adhesion to concrete and asphalt surfaces

Specification

British Standard 2499 : 1973 – Nitoseal MBA2

British Standard 6920 : 1988 – Nitoseal MBA2

Water Research Council approved (for contact with potable water approval no. 8810512)

Description

Hot-poured, rubber bitumen horizontal joint sealing compounds, black in colour. Four grades Nitoseal MBA2, Nitoseal MBA1, Nitoseal MB77 and Nitoseal MB99.

Nitoseal MBA2

Nitoseal MBA2 is for low movement joints in locations where the ambient temperature is between 0°C and 40°C, the product comes into contact with potable water and where joints spacings are not more than 12 metres e.g. reservoirs.

Nitoseal MBA1

Nitoseal MBA1 formerly known as Pliastic A1 is for higher movement joints in locations where the ambient temperature is between –20°C and 40°C, where slump resistance is important at higher ambient temperatures or where joint spacings exceed 12 metres e.g. road construction.

Nitoseal MB77

Nitoseal MB77 formerly known as Pliastic 77 is a hard grade for sealing low movement joints in factory floors and areas where joints are closely spaced and resistance to grit and traffic is of prime importance.

Nitoseal MB99

Nitoseal MB99 formerly known as Pliastic 99 is similar in composition to Nitoseal MB77 but has a higher softening point for use in hot climates where the ambient temperature never falls below 4°C and is expected to rise above 40°C. At higher ambient temperatures the properties of Nitoseal MB99 approximate to those given for Nitoseal MB77 in temperate climates.

Design Criteria

Nitoseal compounds are normally considered suitable for joints up to 30 mm wide in trafficked surfaces but joints up to 65 mm wide can be sealed with Nitoseal where the joints are horizontal and are not subject to trafficking. The depth of the joint sealing compound should not exceed 50 mm and for most normal uses, 25 mm is recommended.

Nitoseal can be used on inclined surfaces up to about 1 in 20. Extra care must be taken, however, when pouring. In vertical joints Nitoseal MB150 should be used. Where higher joint movement capability is required, sealing joints with Fosroc Colpor 200PF, Thioflex 600 or Nitoseal 12 is recommended. Since Nitoseal compounds are bituminous, they are suitable for sealing against bituminous asphalt surfaces. In addition to the Nitoseal surface seal, all immersed joints and roof joints in water retaining structures should contain waterstops.



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Properties

Application	Over 5°C	
Temperature	Over 5°C	
Chemical resistance	Dilute acids	resistant
To occasional spillage	Dilute alkalis	resistant
	Petroleum	
	Solvents	not resistant
	Minerals oils	not resistant
	Vegetable oils	not resistant
	Greases	not resistant

Drinking water : Nitoseal MB99 is not soluble in water and therefore imparts no taint to it.

Movement Accommodation Factor:

Total joint range, butt joints:

Nitoseal MB1 and MBA2	:	12%
MB77 and MB99	:	10%

Example: Sealed expansion joints in a concrete reservoir roof.



1. Nitoseal MBA2
2. Hydrocell
3. Supercast Hydrofoil Waterstop
4. PVC Capping strip (if required)

Application instructions

Joint preparation

Ensure that the joint surfaces are completely dry, clean and frost free. Remove all dirt, dust, laitance and loose material preferably by grit blasting or by rigorous wire brushing. Immediately prior to priming blow out all remaining loose dust with dry, oil free compressed air. Metal surfaces do not require priming but should be warmed to ensure satisfactory adhesion.

Where applicable, care must be taken to ensure that the compressible joint filler, such as Flexcell, will provide adequate support for the Nitoseal MB99 compound.

Priming

Porous surfaces such as concrete, stone and brick paving, should be primed with Fosroc Primer 3. Brush apply primer and allow to become touch dry before sealing, normally 1 to 4 hours.

Non-porous surfaces do not normally require priming. Ferrous metals should be treated with an anti-corrosion primer, such as Fosroc Galvafruid.

Heating

The use of a heating vessel with oil jacket and fitted with stirrer and the thermometer is essential.

Cut the compound into small pieces, melt a few pieces then gradually add more pieces to the molten material stirring continuously. Heat until the compound reaches its correct pouring temperature.

Nitoseal MBA2 and MBA1	:	175 to 185°C
Nitoseal MB77	:	180 to 190°C
Nitoseal MB99	:	200 to 205°C

Do not overheat. Uses as soon as possible after heating, preferably within two hours.

Safe heating temperatures

Nitoseal MBA2 and MBA1	:	190oC
Nitoseal MB77	:	195oC
Nitoseal MB99	:	210oC

Caution: Heating of compound should be carried out in well ventilated areas.

Application

Joints should be filled to the surface of the concrete or to the level specified. Joint seals in carriageways are normally finished 3 mm to 6 mm low to avoid extrusion,

A concave finish due to shrinkage on cooling is normal but in a deep or narrow joints and joints not subject to traffic the compound may be poured in two layers to produce a uniform finish.

Cleaning

Equipment should be emptied immediately after use. Compound that heated and allowed to cool completely must be scrapped.



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