



Fosroc Nitomortar MH

Solvent free epoxy lining and benching mortar

Uses

A trowelable epoxy mortar with maximum chemical and abrasion resistance for the protection of concrete and similar substrates. It is ideally suited for the rehabilitation of manholes.

Advantages

- Pre-weighed quality controlled materials ensure consistency and reduce risk of site errors.
- Unaffected by a wide range of acids, alkalis and industrial chemicals.
- 2 to 3 times stronger than typical concrete. Excellent resistance to abrasion and impact.
- Will cure under damp conditions. Cured surface is impermeable to water.
- Superior chemical and physical bond to virtually all substrates, dry or damp.
- Early strength development minimises maintenance disruption.
- No harmful vapours present. Particularly suitable for enclosed environments.
- Designed for easy laying to a fair finish.

Description

Nitomortar MH blend of siliceous aggregates is blended together with epoxy resins specifically developed for use in aggressive conditions.

Nitomortar MH is simple and cost effective for vertical and horizontal patching and for resurfacing to both dry and damp surfaces. The low odour, non-sag and chemically resistant properties of Nitomortar MH make it the ideal material for long lasting manhole rehabilitation and for use in similarly enclosed structures.

Nitomortar MH can be used in brick, block and all concrete manholes, including precast, and provides an impermeable high strength, monolithic lining to the interior of manhole walls.

Nitomortar MH is supplied as a 3 pack material in pre-weighed quantities ready for on-site mixing and use.

Properties

Test method	Typical results
Compressive strength : (ASTM C579)	84 N/mm ²
Flexural strength : (ASTM C580)	26 N/mm ²
Tensile strength : (ASTM C307)	13 N/mm ²
Water absorption	: 0.01%
Initial hardness	: 24 hours @ 25°C 16 hours @ 35°C
Full cure	: 7 days @ 25°C 4 days @ 35°C
Pot Life	: 2 Hours @ 25°C 1 Hr 20 mins. @ 35°C

Chemical resistance

Nitomortar MH has been independently tested to ASTM C267 and found to be resistant to 10% sulphuric acid at 50°C. Nitomortar MH is also resistant to a wide range of industrial chemicals. Contact the Fosroc technical department for further details.

Design criteria

Nitomortar MH is designed for application to brick, block or concrete particularly in enclosed environments. It is highly suited for use in the rehabilitation of manholes. Nitomortar MH can be applied to a depth of 12mm in one application, subsequent applications to increase thickness can be made the following day.

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.

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Instructions for use

Surface preparation

Surfaces must be clean and structurally sound. Any loose or unsound brick or concrete should be removed. Surfaces must be entirely free of oil, grease, paint, detergents, rust or other surface contaminants.

Surfaces should preferably be prepared by high pressure water jetting or light grit blasting, followed by thorough washing to remove dust and remaining particles. Diesel and oil contaminants should be removed with detergent and rinsed thoroughly with water.

Prior to applying Nitomortar MH, all active hydrostatic leaks must be stopped by the use of Renderoc Plug**†, a hydrostatic cement specially formulated to stop the ingress of water.

Substrate Priming

Substrates should be primed using Nitocote Primer Sealer. The primer should be mixed in the proportions supplied, adding the entire contents of the 'hardener' tin to the 'base' tin. The two components should be thoroughly mixed together for three minutes.

The mixed primer should be scrubbed well into the prepared substrate, taking care that all imperfections in the surface are properly coated and avoiding 'ponding' in depressions. If the primer is absorbed within 30 minutes, a second coat should be applied before continuing.

Nitomortar MH can be applied as soon as the primer has started to gel but still has surface 'tack'. This is normally between 30 minutes and 4 hours dependent on the ambient and substrate temperatures.

If the primer cures hard, a second application must be made before the application of Nitomortar MH. The usable life of the mixed primer is approximately 60 minutes at 20°C or 30 minutes at 35°C.

Mixing

The Nitomortar MH components are supplied in pre-weighed quantities. Under no circumstances must part packs be used. Mechanical mixing is necessary to produce a fully homogeneous mortar.

The entire contents of the hardener tin should be emptied into the base tin and the two components mixed thoroughly for 3-5 minutes. The mixed resins should then be emptied into a suitably sized mixing drum or bucket.

The supplied aggregate should then be added slowly while the product is being continuously mixed by suitable mechanical means, e.g. a heavy duty, slow speed drill (350-500 rpm) and approved mixing paddle.

Larger quantities of Nitomortar MH can be mixed in a heavy duty paddle-mixer, however, no more than can be reasonably used within the pot life of the product, should be prepared at any one time.

Application

The mixed material should be used at once. It should be applied to the prepared surfaces with a spatula or steel trowel, pressing the mortar firmly on to all surfaces to ensure positive adhesion. To avoid sagging on vertical and overhead surfaces, do not apply in thicknesses greater than 12mm per layer.

Where additional applications are required, do not tightly close the surface of the first layer. Subsequent applications should be made the following day. To close the surface and to create a smooth, impermeable finish, lubricate the trowel with clean water. This may give a slight whitening of the surface but does not affect performance.

Important Note: Do not use solvents to thin components or to lubricate the trowel as this will prevent proper cure.

Cleaning

Clean tools and equipment with water or Fosroc Solvent 102 immediately after use.



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Estimating

Supply

Nitomortar MH	:	14 litre packs
Nitocote Primer Sealer	:	1 and 4 litre packs

Coverage

Nitomortar MH	:	2.8 m ² @ 5 mm thickness
Nitocote Primer Sealer	:	4 - 5 m ² /litre

Storage

Shelf life

All products have a shelf life of 12 months at 30°C if stored in a dry shaded place in the original, unopened bags.

Precautions

Health and safety

Some people are sensitive to epoxy resins and skin contact should be avoided. Gloves and barrier creams such as Kerodex 71 or Rozalex 9 should be used when handling these products. If contact with the resin occurs, it must be removed before it hardens with a resin removing cream such as Kerocleanse 22 or Rozalex 42 followed by washing with soap and water.

Solvents should not be used for cleaning hands. Contact with eyes must be avoided and accidental contamination should be washed thoroughly with plenty of clean water and medical treatment sought immediately. The use of goggles is recommended

Fire

Fosroc Solvent 102 is flammable. Ensure adequate ventilation. Do not use near a naked flame or smoke during use.

Flash points

Fosroc Solvent 102	:	33°C
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For further information, refer to the Product Material Safety Data Sheet.

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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.

* Denotes the trademark of Fosroc International Limited

† See separate data sheet



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Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. **All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.**

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