

# Fosroc® Nitomortar FC

## High strength, trowel grade, epoxy resin fairing coat, repair and bedding mortar and adhesive

### Uses

Nitomortar FC is designed for application to minor imperfections in concrete surfaces. It is suitable for application from a feather-edge to 3 mm, and can be used in the following situations:

- Filling pinholes prior to over-coating with Nitocote or Nitofloepoxy coatings and floorings.
- General re-profiling over large areas, up to 3 mm depth.
- Sealing of surface cracks in preparation for crack injection
- General purpose bedding mortar and adhesive

### Advantages

- Cost effective - reduces usage of subsequent coatings
- High performance - excellent chemical resistance, strong adhesion to concrete substrate.
- User friendly - easy to apply and finish, manufactured to meet local conditions

### Description

Nitomortar FC is a two component thixotropic, solvent free, compound based on epoxy resins, graded fillers and thixotropic agents. It is applied directly to concrete substrates, without primer, and cures to a surface ready for over coating. The base component is light grey coloured and the hardener black to ease identification of uniform mixing.

### Technical support

Fosroc offers a comprehensive range of high performance high quality, construction products. In addition to a wide range of quality products, Fosroc offers a technical support package to specifiers and contractors which includes assistance with product selection and technical advice from staff with unrivalled experience in the industry.

### Properties

Test method	Typical results
<b>Solids by Weight</b>	: 100%
<b>Compressive Strength (BS 6319, Part 2)</b>	: 70 N/mm <sup>2</sup> at 7 days
<b>Bond Strength</b>	: >Cohesive strength of concrete
<b>Pot Life</b>	: 4 hrs at 25°C 1.5 hrs at 35°C
<b>Initial cure</b>	: 10 hrs at 25° 4 hrs at 35°C
<b>Over-coating Time</b>	: After 24 hrs period
<b>Full Cure</b>	: 7 days at 25° 4 days at 35°C
<b>Colour</b>	: Grey
<b>Chemical Resistance</b>	: Resistant to oils, fats, petrol, salt and sugar solution, bleach, dilute mineral acids, alkalis and various solvents

### Design criteria

Nitomortar FC is designed for filling pinholes and surface irregularities in concrete prior to the application of subsequent coatings. It can be applied from a feather-edge up to 3 mm thickness. For re-profiling, or hole filling, with thicknesses in excess of 3 mm, greater thicknesses can be achieved by applying subsequent layers, consult your local Fosroc office. For higher build characteristics, the use of Nitomortar HB range is recommended.

### Instructions for Use

#### Preparation

Concrete surfaces should be clean, dry and free from laitance. Surface should preferably be prepared using high pressure water jetting or light abrasive blasting, followed by thorough washing to remove dust and remaining particles.

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## Mixing

Care should be taken to ensure that Nitomortar FC is thoroughly mixed to produce a fully homogeneous paste. The hardener and 'base' components should be stirred thoroughly in order to disperse any settlement before mixing them together. The entire contents of the 'hardener' should be emptied into the 'base' container and the components mixed together using a suitable mixing paddle attached to a slow speed (400/500rpm) heavy duty drill, until a uniform grey colour and consistency is obtained. Mixing of 2L packs can be done by hand but care must be taken to ensure homogenous mixing. Under no circumstances should part packs be used, or part mixing be attempted.

## Application

Due to the easy workability of the product, a variety of instruments such as trowel, scraper, filling knife and squeegee can be used. After mixing, material can be taken directly from the can, or subdivided onto spot boards for individual applicators. Nitomortar FC can be over-coated with all epoxy coatings after a minimum curing period of 24 hours. Prior to over-coating, the surface of the fully cured Nitomortar FC should first be abraded to assist adhesion, and then cleaned to a dust-free finish

## Build-up

Additional build-up can be achieved by application of multiple layers. Where thicker sections are required, the surface of the intermediate applications should not be closed, to provide a suitable surface for subsequent layers. The application of additional layers should follow between 8 and 24 hours at 20°C after the first application. This time should be reduced at higher temperatures. Application of Nitomortar FC may then proceed.

If sagging occurs during application, the Nitomortar FC should be completely removed and re-applied at a reduced thickness on to the substrate.

## Finishing

Any ridges left by the trowel can be brushed out while the material is still wet or ground down with a carborundum stone before over-coating.

**Important note:** Do not use solvent to thin components as this will prevent proper cure.

## Over-coating with protective/decorative finishes

Nitomortar FC can be over-coated with Nitocote epoxy coatings or Nitoflor epoxy floorings within a maximum interval of 24 hours.

For surrounding areas not subjected to chemical attack or physical wear, Fosroc recommend the use of the Dekguard range of anti-carbonation, anti-chloride protective coatings. These products provide a decorative and uniform appearance as well as protecting areas of the structure which might otherwise be at risk from the environment. For further advice on coatings, consult the local Fosroc office.

## Cleaning

Nitomortar FC should be removed from tools, equipment and mixers with Fosroc Solvent 102 immediately after use. Hardened material can only be removed mechanically

## Estimating

### Supply

Nitomortar FC	: 2 and 5 litre packs
Fosroc Solvent 102	: 5, 18 and 20L Pails

## Coverage

Coverage of Nitomortar FC is wholly dependent upon surface conditions, site trials are therefore recommended to ascertain actual usage on uneven substrates.

As a guideline when applied at 200 microns DFT coverage is approximately 5m<sup>2</sup>/litre.

## Storage

### Shelf life

All products have a shelf life of 12 months at 25°C if kept in a dry store in the original, unopened bags or packs.

### Storage conditions

Store in dry conditions in original, unopened containers. If stored at high temperatures, the shelf life may be reduced to 4 to 6 months.

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## Limitations

- Do not mix part packs under any circumstances.
- Nitomortar FC should not be exposed to moving water during application.
- Exposure to heavy rainfall prior to final set may result in surface scour.
- If any doubt arises concerning temperature or substrate condition, consult the local Fosroc office.

## Precautions

### Health and safety

Nitomortar FC and Fosroc Solvent 102 should not come in contact with skin or eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye/face protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provides additional skin protection.

Should accidental skin contact occur, remove immediately with a resin removing cream followed by soap and water. Do not use solvent. In case of contact with eye, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

## Fire

Nitomortar FC is non-flammable. Fosroc Solvent 102 is flammable. Keep away from sources of ignition. No smoking. In the event of fire extinguish with CO<sup>2</sup> or foam.

Do not use a water jet.

## Flash point

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Fosroc Solvent 102 : 33°C

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For further information, refer to the Product Material Safety Data Sheet.

## Additional Information

Fosroc manufactures a wide range of products specifically designed for the repair and refurbishment of damaged reinforced concrete. These include hand-placed and spray grade repair mortars, fluid micro-concretes, chemical resistant epoxy mortars and a comprehensive package of protective coatings.



### 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 Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of 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 of information given by it.

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