

Fosroc Nitomortar FC(FS)



constructive solutions

Epoxy resin fairing coat and filler (fast set version)

Uses

Nitomortar FC(FS) 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 overcoating with Nitocote* or Nitoflor* products.
- General reprofiling over large areas, up to 3 mm depth.
- Sealing of surface cracks in preparation for crack injection.

Advantages

- **Cost effective** - reduces usage of subsequent coatings
- **Fast setting** - significant benefit in fast track applications e.g. shutdowns or inter-tidal work
- **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(FS) 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.

Design criteria

Nitomortar FC(FS) 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 reprofiling, or hole filling, with thicknesses in excess of 3 mm, it is recommended to use Nitomortar FC(B)*.

Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Specification Compliance

Nitomortar FC(FS) meets performance requirements of AASHTO M237.

Properties

Pot life	: 20 minutes @ 35°C
Drying time	: 1 to 2 hours @ 35°C
Overcoating time	: After 6 to 8 hours curing period
Specific gravity	: 1.7 mixed material
Solids by weight	: 100%
Compressive strength	
ASTM C579	: 60 N/mm ² @ 7 days
Tensile strength	
ASTM C307	: 16 N/mm ² @ 7 days
Tangent Modulus of Elasticity - ASTM C580	: 4750 N/mm ²
Bond strength	: Greater than tensile strength of concrete
Chemical resistance	: Resistant to oils, fats, petrol, salt and sugar solution, bleach, dilute mineral acids, alkalis and various solvents

Instructions for use

Preparation

Concrete surfaces should be clean, dry and free from laitance. Sandblasting or mechanical wire brushing may be necessary.

Mixing

Care should be taken to ensure that Nitomortar FC(FS) 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 Fosroc mixing paddle attached to a slow-speed (400/500rpm) heavy duty drill, until a uniform grey colour and consistency is obtained. Mixing of 1kg packs can be done by hand. 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(FS) can be overcoated with all epoxy coatings after a minimum curing period of 6 to 8 hours. Prior to overcoating, the surface of the fully cured Nitomortar FC should first be abraded to assist adhesion, and then cleaned to a dust-free finish.

Fosroc Nitomortar FC(FS)

Cleaning

Nitomortar FC(FS) 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(FS) : 1 and 4 litre packs

Fosroc Solvent 102 : 5 litre cans

Coverage and yield:

Coverage of Nitomortar FC(FS) is wholly dependant 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 3m²/kg.

Storage

Shelf life

12 months if kept in unopened tins and stored in a dry place away from direct sunlight.

Storage conditions

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

Limitations

- Do not mix part packs under any circumstances.
- Nitomortar FC(FS) 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(FS) 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(FS) is non-flammable.

Fosroc Solvent 102 is flammable. Keep away from sources of ignition. No smoking. In the event of fire extinguish with CO₂ or foam. Do not use a water jet.

Flash points

Fosroc Solvent 102 : 33°C

For further information, refer to the product materials 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.

* 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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