



Specialist Construction Supplies for Repair, Maintenance, Building & Infrastructure

Nitomortar FC Data Sheet

Specification notes

Product: **Nitomortar FC**

Supplier:

Arcon Construction Supplies
19-20 Prestwood Court
Leacroft Road
Warrington
WA3 6SB

Tel: **01925 852225**

Email: mail@arconsupplies.co.uk

Web: www.arconsupplies.co.uk

Call **01925 852225** or visit [Arcon Construction Supplies](http://www.arconconstruction.com)
... for more information on our flooring and construction products

[Industrial Flooring](#) | [Concrete Repairs](#) | [Protective and Waterproof Coatings](#)
[Jointing and Paving Mortars](#) | [Anti-slip Floor Paints](#) | [Concrete Repair Mortars](#)

Nitomortar FC



Epoxy resin fairing coat

Uses

For filling blow-holes, and eliminating minor irregularities prior to the application of Nitocote and Nitoflor epoxy coatings.

Advantages

- Non-slump, can be applied to vertical surfaces and trowelled into blow-holes
- Superior bond strength to virtually all substrates
- Smooth paste consistency is easy to apply and finish
- Reduced usage of subsequent coating
- Pre-weighed components ensure consistency

Description

Nitomortar FC is a two-component thixotropic material based on high quality solvent-free epoxy resin systems. The colour coded material is supplied in pre-weighed quantities ready for on-site mixing and use.

Nitomortar FC can be applied to damp surfaces and quickly cures to form a completely impermeable surface ready for overcoating.

Technical support

Fosroc offers a comprehensive range of high performance, high quality 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.

Design criteria

Nitomortar FC can be applied up to 5 mm thickness on vertical and overhead locations in a single application without the use of formwork. Greater thicknesses than those specified can be achieved by application of subsequent layers. Consult Fosroc Customer Services Department for further information.

For higher build characteristics to vertical or overhead locations, Nitomortar HB is recommended.

Properties

The following properties were obtained at a temperature of 20°C unless otherwise specified.

Test method	Typical results
Compressive strength	
(BS 6319, Pt 2):	70 N/mm ² @ 7 days
Pot life:	4 hours @ 20°C 1½ hours @ 35°C
Initial cure:	10 hours @ 20°C 4 hours @ 35°C
Overcoating time:	10 to 24 hours @ 20°C 4 to 18 hours @ 35°C
Full cure:	7 days @ 20°C 4 days @ 35°C
Fresh wet density:	Approximately 1700 kg/m ³ (fully compacted)
Chemical resistance:	The low permeability of Nitomortar FC retards chemical attack in aggressive environments

Performance of Nitomortar FC continually immersed at 20°C:

Citric acid	10%	Excellent
Tartaric acid	10%	Excellent
Diesel fuel / Petrol	100%	Excellent
Sugar solution	Saturated	Very good
Lactic acid	10%	Very good
Hydrocarbons	100%	Very good
Phosphoric acid	50%	Very good

Specification clauses

Epoxy resin based fairing coat mortar

The epoxy resin based fairing coat mortar shall be Nitomortar FC a two-component solvent-free epoxy resin mortar with a density not greater than 1700 kg/m³. The cured mortar shall achieve a compressive strength of 70 N/mm². The material shall be colour coded to facilitate mixing.

Application instructions

Preparation

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae.

The surface should preferably be prepared using high-pressure water jetting or light abrasive blasting, followed by thorough washing to remove dust and remaining particles.

Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination should then be assessed by a pull-off test.

All steel surfaces should be abrasive blasted to meet the requirements of BS 7079, SA3 immediately before application.

No independent priming system is required.

Mixing

Care should be taken to ensure that Nitomortar FC is thoroughly mixed to produce a fully homogeneous trowellable mortar.

Nitomortar FC can be mixed by hand or with a slow speed drill fitted with a suitable paddle.

The 'base' and 'hardener' components should be stirred thoroughly in order to disperse any settlement before mixing them together. The entire contents of the 'hardener' tub should be emptied into the 'base' container and the components mixed thoroughly until a uniform colour consistency is obtained, taking particular care to scrape the sides and bottom of the container. Under no circumstances should part packs be used.

Application

Apply the mixed Nitomortar FC to the prepared substrate by spatula, filling knife, squeegee or steel float, tight trowelling onto the substrate to ensure positive adhesion and that all blow-holes and defects are completely filled to produce a smooth even finish.

Application thickness will vary with profile and alignment of substrate. Where necessary, mortar should be built-up in layers.

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 be lightly abraded and the resulting dust removed to provide a suitable surface for subsequent layers. The application of additional layers should follow between 10 and 24 hours (at 20°C) after the first application. This time should be increased at lower 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 overcoating.

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

High temperature working

At ambient temperatures above 35°C, Nitomortar FC will have shorter pot life and working life. The materials should be stored in the shade or in air-conditioned environments and should not be applied in direct sunlight.

Curing

Curing protection is not necessary for Nitomortar FC.

Overcoating with protective/decorative finishes

The Nitomortar FC should be overcoated within 24 hours at 20°C.

For surrounding areas not subjected to chemical or physical wear, Fosroc recommend the use of the Dekguard range of anti-carbonation, anti-chloride coatings, thus bringing them up to the same protective standard as the repair itself. 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.

Nitocote epoxy resin coatings should be applied within 24 hours. Dekguard products should not be applied over the repair area until the Nitomortar FC is at least 3 days old. For further advice, consult Fosroc Customer Services Department.

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.

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 Fosroc Customer Services Department.

Application should not be undertaken if the temperature is below 5°C or is 5°C and falling, nor when the prevailing humidity exceeds 90%.

Estimating

Supply

Nitomortar FC:	1 kg packs
-----------------------	------------

Fosroc Solvent 102:	5 litre cans
----------------------------	--------------

Coverage and yield

Nitomortar FC:	1 kg pack = 0.6 ltr Coverage 0.6 m ² @ 1mm thickness
-----------------------	--

The coverage figure is theoretical — due to wastage factors and the variety and nature of possible substrates, practical coverage figures may be substantially reduced.

Storage

Shelf life

All products have a shelf life of 12 months at 20°C if kept in a dry store in the original, unopened containers.

Storage conditions

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

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 resin 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 provide 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 eyes, 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 CO₂ or foam. Do not use a water jet.

Flash point

Fosroc Solvent 102:	33°C
----------------------------	------

For further information, refer to the Product 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. In addition, a wide range of complementary products is available. This includes joint sealants, waterproofing membranes, grouting, anchoring and specialised flooring materials.

Fosroc has also produced several educational training videos that provide more detail about the mechanisms that cause corrosion within reinforced concrete structures and solutions that are available to arrest or retard these destructive mechanisms. Further information is available from the publication: 'Concrete Repair And Protection — The Systematic Approach', available in seven language formats.

For further information about products, training videos or publications, contact Fosroc Customer Services Department.

**Fosroc Limited**

Coleshill Road
Tamworth
Staffordshire
B78 3TL
Tel 01827 262222
Fax 01827 262444
www.fosrocuk.com

Nitomortar is the trade mark of Fosroc International Limited

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 or 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 or information given by it.