

Nitomortar TC2000

Epoxy resin based sealing compound

Uses

As a two part filled epoxy resin used to seal over cracks in structural materials such as concrete in aggressive environments. A pore sealer on horizontal and vertical surfaces eliminating minor irregularities prior to the application of Nitocote and Nitoflor Epoxy and Urethane coatings. Fixing and bedding of tiles.

Advantages

- Non-slump, can be applied to vertical surfaces and troweled into blow holes.
- Superior bond strength to virtually all substrates.
- Smooth paste consistency, easy to apply and finish.
- Good chemical resistance.
- Excellent adhesion.
- Compatible to over-coat with epoxy coating

Description

Nitomortar TC2000 is a two component thixotropic compound based on high quality solvent-free epoxy resin systems. The material is supplied in pre-weighed quantities ready for on-site mixing and use. Once it is cured, it will form a completely impermeable surface ready for over-coating. Nitomortar TC2000 is available as standard in Grey colour.

Technical support

Fosroc offers a comprehensive range of high performance, high quality products suitable for use within all aspects of the concrete repair and protection industry. In addition, the company offers a technical support package to specifiers, end users and contractors, as well as on-site assistance.

Design Criteria

Nitomortar TC2000 can be applied in sections 0.5 to 3.0 mm thickness in horizontal and vertical locations in a single application without the use of formwork. Greater thicknesses than those specified can be achieved by application of subsequent layers.

Properties

Volume solids	:	100%
Pot life @ 24°C	:	150 minutes
(ASTM D2471:1999)		
Compressive strength:	1 day	: 30 N/mm ²
(ASTM C579:2018)	3 days	: 50 N/mm ²
	7 days	: 70 N/mm ²
Flexural strength:	7 days	: 20 N/mm ²
(ASTM C580:2018)	cured	
Tensile strength:	7 days	: 14 N/mm ²
(ASTM C307:2018)	cured	
Mix density	:	1.68 kg/L
Thickness	:	Up to 3mm
Adhesion to Concrete	:	> 2 N/mm ²
(ASTM D7234:2012)		

Application instructions

Preparation

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

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

Oils 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.

No independent priming system is required.

Mixing

The entire contents of the hardener can should be added to the base container and mixed thoroughly until a uniform grey colour and consistency are obtained, taking particular care to scrape the sides and bottom of the containers. It is recommended that mechanical mixing be employed using a Jiffy mixer on a slow speed electric drill.

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Application

Apply the mixed Nitomortar TC2000 to the prepared substrate by spatula, filling knife 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 application of multiple layers is required, this can be accomplished by applying the additional layer between 2 to 8 hours at 25°C after the first layer application. This time should be reduced at higher temperature. Beyond this open time abrade the surface of Nitomortar TC2000 with sandpaper, then remove the dust generated using clean rags and Fosroc Solvent 102 prior to apply the second layer. Alternatively, the first layer of Nitomortar TC2000 may be "scratch keyed" whilst wet to provide mechanical key for subsequent layers.

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.

High temperature working

At ambient temperatures above 35°C Nitomortar TC2000 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.

Cleaning

Nitomortar TC2000 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 TC2000 should not be exposed to 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. Nitomortar TC2000 should not be used when the temperature is below 5°C and falling.

Estimating

Supply

Nitomortar TC2000	: 5 & 10 kg packs
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Fosroc Solvent 102	: 5, 18 & 20 litres cans
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Yield

Nitomortar TC2000	: 2.9 Litres per 5 Kg pack
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	: 5.8 Litres per 10 Kg pack
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The coverage figure is theoretical. Due to wastage factors

Storage

Shelf life

Nitomortar TC2000 has a shelf life of 12 months if kept in a dry store between 5°C and 25°C in the original, unopened containers.

Storage conditions

Store in dry conditions at temperatures between 5°C and 30°C in the original, unopened containers. If stored at high temperatures the shelf life may be reduced.

Precautions

Health and Safety

Nitomortar TC2000 and Fosroc Solvent 102 should not come in contact with skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapour. Some people are sensitive to resins and solvents. Wear suitable protective clothing, gloves and eye/face protection. 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

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.

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

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Additional information

Fosroc manufactures a wide range of products specifically designed for the repair and refurbishment of damaged reinforced concrete. This includes hand-placed and spray grade 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 and specialised flooring materials.



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Important note

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