

Fosroc Nitoprime Zincrich



constructive solutions

Single component zinc primer

Uses

Nitoprime Zincrich is the recommended anti-corrosion primer for exposed steel reinforcement for use with Fosroc concrete repair mortars. The product actively resists corrosion within the confines of the repair location and avoids the generation of incipient anodes in immediately adjacent locations.

Nitoprime Zincrich, an electrically conductive coating, is fully compatible with all Renderoc mortars, fluid micro-concretes and certain electrochemical products.

Advantages

- 'Active' Zinc-rich system combats corrosion by electro-chemical means
- Formulated for use with Renderoc repair products
- Single component product - easy to use with no restrictive pot life
- Time saving - fast drying time

Standards compliance

Water bye-laws scheme - approved product. The product has also been approved by the British Board of Agreement, Certificate No 98/3461 as part of the Renderoc System of concrete repair.

Description

Nitoprime Zincrich is supplied as a single component grey coloured liquid based on metallic zinc.

Technical support

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

Properties

Test	Typical result
Specific gravity	: 2.5
Recommended thickness /coat	: 40 microns (dry)
Application thickness per coat	: 135 microns (wet)
Drying Time (BS4652)	: <1 Hour
Pigment Vol. Concentration (BS4652)	: 76.0%
Flexibility (BS4652)	: Passed
Salt spray test (BS4652)	: Passed

Design criteria

One or two coats of Nitoprime Zincrich are generally required, dependent largely on the nature and profile of the substrate. Nitoprime Zincrich is recoatable generally between 30 minutes and one hour after the initial application.

Application of concrete repair materials may also proceed at this time. At elevated temperatures, the recoatable and overlay times will be reduced. The minimum application temperature for Nitoprime Zincrich is 5°C. Consult the local Fosroc office for further information.

Specification

Steel reinforcement primer

The steel reinforcement primer shall be Nitoprime Zincrich, a single component zinc-rich liquid, packed and supplied ready to use. An unbroken 40 microns thick coating shall be capable of providing 'active' galvanic protection within the repair zone.

It shall be a suitable viscosity to enable the coating to penetrate imperfections and pits within the surface of corrosion damaged steel bars.

The formulation of the primer shall be such that drying occurs to allow the application of the repair mortar to proceed after 20 to 45 minutes at 35°C or after 30 minutes to one hour at 20°C. It shall be fully compatible with the Renderoc system of concrete repair.

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Instruction for use

Preparation

Expose fully any corroded steel in the repair area and remove all loose scale and corrosion deposits. Steel should be cleaned to a bright condition with particular emphasis to the back of exposed bars. Grit blasting is recommended for this process.

Where corrosion has occurred due to the presence of chlorides, the steel should be high pressure washed with clean water immediately following grit blasting, to remove corrosion products from pits and imperfections within its surface.

Application

The application of Nitoprime Zincrich must take place as soon as possible to a dry steel surface after completion of the preparation work but always within 3 hours. Although a single component product, it should be stirred thoroughly before use in order to re-disperse any settlement.

Apply one full and unbroken coat of Nitoprime Zincrich by suitable brush, making sure that the back of exposed reinforcing bars are fully coated. A small brush is generally more suitable for this purpose. Allow to dry fully before continuing. If any doubt exists about having achieved an unbroken coating, a second application should be made as soon as the first coat is fully dry (generally between 30 minutes and one hour).

The primed surfaces should not be left exposed to the elements for longer than necessary before overcoating or application of the repair material. Nitoprime Zincrich will, however, protect steel under clean interior exposure conditions for a period of several months.

In non-aggressive exterior environments, a maximum interval of 14 days will be tolerated but in industrial and/or marine environments this interval should be reduced to the practical minimum.

The application of concrete repair materials should proceed as soon as the Nitoprime Zincrich is fully dry (generally 20 minutes to one hour - see under properties).

Low temperature working

The minimum application temperature is 5°C. The material should not be applied when the substrate and/or air temperature is 5°C and falling. At 5°C static temperature or at 5°C and rising, the application may proceed.

Cleaning

Nitoprime Zincrich should be removed from tools, mixers and equipment with Fosroc Solvent 102* immediately after use.

Limitations

- Nitoprime Zincrich should not be applied when the temperature is below 5°C or is 5°C and falling. If any doubts arise concerning temperature or application conditions, consult the local Fosroc office.

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Estimating

Supply

Nitoprime Zincrich	:	1 litre
Fosroc Solvent 102	:	5 litre cans

Coverage

Nitoprime Zincrich	:	7.4 m ² /litre
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Note : The coverage figure for Nitoprime Zincrich is theoretical due to wastage factors and the variety and nature of possible substrates, practical figures will be reduced.

Storage

Shelf life

Nitoprime Zincrich has a shelf life of 6 months and Fosroc Solvent 102 has a shelf life of 12 months, if kept in a dry store in the original unopened packs.

Precautions

Health and safety

Nitoprime Zincrich 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 protection.

If working in confined areas, suitable respiratory equipment must be used.

The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. In case of skin contact with Nitoprime Zincrich, remove immediately with resin removing cream followed by washing with 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

Nitoprime Zincrich and Fosroc Solvent 102 are 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

Nitoprime Zincrich	:	16°C
Fosroc Solvent 102	:	33°C

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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