



Nitoprime Zincrich

Single component epoxy 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 confiners of the repair location and avoids the generation of incipient anodes in immediately adjacent locations.

It is fully compatible with all Renderoc mortar and fluid micro-concretes.

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 - touch dry after 15 to 45 minutes
- Economical - single component ensures almost no waste

Standards compliance

Water Byelaws Scheme - approved product.

Nitoprime Zincrich complies with the appropriate clauses of BS 4652:1971 - specification for metallic zinc-rich priming paint, Type 2.

The product has also been approved by the British Board of Agreement, Certificate No 91/2582 as part of the Renderoc system of concrete repair.



Description

Nitoprime Zincrich is supplied as a single component grey-coloured liquid base on metallic zinc and epoxy resins.

Technical support

Fosroc offers a comprehensive range of high performance, high quality concrete repair and construction products. In addition, Fosroc offers a technical support service to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the world.

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

Properties

Test method	Typical result	
Specific gravity:	2.0	
Recommended thickness per coat:	40 microns (dry)	
Application thickness per coat:	135 microns (wet)	
Drying times-	@ 20°C	@ 35°C
Touch dry:	45 mins	15 mins
Fully dry/recoatable:	30 mins to 1 hour	20 to 45 mins

Nitoprime Zincrich

Note: at temperature below 20°C, the drying times will be slower. Conversely, at temperatures above 35°C, the drying times will be faster.

Specification clauses

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 and of avoiding the generation of incipient anodes in the immediately adjacent locations. 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.

Application instructions

Preparation

Expose fully any corroded steel in the repair area and remove all loose scale and corrosion deposits. Steel should be cleaned to bright condition paying particular attention to the back of exposed steel bars. Grid-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 after 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 redisperse any settlement.

Apply one full and unbroken coat of **Nitoprime Zincrich** by suitable brush, make sure that the back of exposed steel reinforcing bars are properly 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 no-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 of at 5°C and rising, the application may proceed.

Cleaning

Nitoprime Zincrich should be removed from tools, equipment and mixers 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.

Estimating

Supply

Nitoprime Zincrich: 1 and 2.5 litre cans

Fosroc Solvent 102: 5 litre can

Coverage

Nitoprime Zincrich: 7.4 m²/litre

Note: this coverage figure is theoretical - due to wastage factors and the variety and nature of possible steel substrate, practical coverage figures will be reduced.

UN packaging regulations

To comply with current regulations, all product of a hazardous nature which are subjected to a sea crossing as part of their delivery requirements, must be packed in UN approved receptacles.

When a known sea crossing is involved, whether locally or for export, Fosroc will supply in the correct UN packaging.



Nitoprime Zincrich

Where Fosroc is requested to deliver within a mainland boundary but the Purchaser intends to onward ship, it is incumbent upon the Purchaser to specify that UN packaging is required at the time of placing the order. Otherwise, once received, responsibility rests with the Purchaser. The use of UN packaging may effect the selling price of products. Please consult the local Fosroc office.

Storage

Shelf life

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

Storage conditions

Store in dry conditions in the original containers. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.

Precautions

Health and safety

Nitoprime Zincrich and Fosroc Solvent 102 should not come in contact with the skin and 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 protective 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.

Additional information

Nitoprime Zincrich is the approved reinforcing steel primer for use with the **Renderoc**, **Patchroc** and **Paveroc** systems of concrete repair.

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 repair mortars, fluid micro-concretes, chemical-resistant epoxy mortars and comprehensive package 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 which provide more detail about the mechanisms which cause corrosion within reinforced concrete structures and the solutions which 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 publication, contact the local Fosroc office.



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Important note

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