



Nitoprime® Zincrich

Single component epoxy zinc primer

Uses

Nitoprime zincrich 90 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.

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

Advantages

- Active 'Zinc-rich' system combats corrosion by electrochemical means.
- Formulated for use with Renderoc repair products.
- Single component product - easy to use with no restrictive pot life.
- Time saving - fast drying time.
- Economical - single component ensures almost no waste.

Standards compliance

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 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 country.

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 application of first coat. Application of top coating /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°. Consult the local Fosroc office for further information.

Properties

Test method	Typical result	
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.	20 to 45 mins.

Note : At temperatures 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 zinc rich 90, 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 of suitable viscosity to enable the coating to penetrate into imperfections and pits within the surface of the structural steel.

The formulation of the primer shall be such that drying occurs to allow the application of the repair mortar to proceed after 20 - 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 and remove all loose scale and corrosion deposits. Steel should be cleaned to a bright condition paying particular attention to the back of exposed steel 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 after grit-blasting to remove corrosion products from pits and imperfections within its surface.

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Application

The application of Nitoprime Zincrich must take place as soon as possible to a dry cleaned steel surface after completion of the preparation work but always within 3 hours.

Apply one full and unbroken coat of Nitoprime Zincrich by suitable brush. making sure the surfaces of the steel are properly coated. A small brush is generally suitable for this purpose. Allow to dry fully before continuing. If in doubt of 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 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 mins. to 1 hour - Refer 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 below.

Cleaning

Nitoprime Zincrich should be removed from tools, equipment and mixers with Nitoflor Sol immediately after use.

Limitations

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 5°C and rising, the application may proceed.

Estimating

Packaging

Nitoprime Zincrich	1 litre Pack
Nitoflor Sol	5, 20 litre containers

Coverage

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

Storage

Shelf life

Nitoprime Zincrich has a shelf life of 6 months if kept in dry store in the original, unopened containers. If stored at high temperature and/or high humidity conditions the shelf life may be reduced.

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Precautions

Health & Safety

Nitoprime Zincrich and Nitoflor Sol 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 skinprotection. In case of contact with skin, rinse with plenty of 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 Nitoflor Sol are flammable. Keep away from source of ignition. No smoking. In the event of fire, extinguish with Carbondioxide or foam. Do not use a water jet.

Flash points

Nitoprime Zincrich	16 °C
Nitoflor Sol	33°C

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