



Pre-cast window head repair - before



Pre-cast Window Head Repair – Defective pre-cast Removed



Pre-cast Window Head Repair – Defective Rebar rubbed back by mechanical means and treated with Fosroc Galvafruid



Pre-cast Window Head Repair – Base/Backing Coat – Fosroc Renderoc GP

Top/Finish Coat – OPC Based Portland Premixed Mortar with Calcite (Ratio 12 parts Portland Premix : 1 Part Calcite).

Top coat finished gently with a wooden float.

Haringey Civic CENTRE – Wood Green

Methodology – Stone Restoration Repairs

Tasks Covered

- Stone Restoration Repairs

- i. With the careful use of small handheld mechanical stone cutters and hand tools, remove stone taking care not to over cut the repair. Depending on the type of stone being repaired the repair may be cut square or left 'rough cut' depending on which would be the most sympathetic to the surrounding masonry.
- ii. Remove defective material to the required depth. If necessary, stainless-steel armature, drilled and resin bonded into the body of the repair will be installed to reinforce the repair.
- iii. Where existing steel reinforcement is evident, allow to clean existing steelwork to standard St 3, using abrasive wire cups, etc.
- iv. All existing steel to receive galvanic protection in the form of Fosroc Galvafruid zinc rich cold galvanising protective paint or Nitoprime Zincrich Plus protective paint. (Paint finish to be confirmed by engineer)
- v. When all steel is treated, flush out the substrate with clean water, taking care not to saturate the substrate.
- vi. A timber shutter is to be formed to encapsulate the area of the repair.
- vii. Mould oil to be applied to all internal faces so as to assist in ease of removal of shutter.
- viii. While the area is still damp apply initial repair mortar. Depending on depth of repair and weather conditions it may be necessary to build out the repair in multiple layers
- ix. Repair material in multiple coats (as necessary) of Fosroc Renderoc GP.
- x. Renderoc GP must not be applied in coats of less than 10mm.
- xi. Where multiple layers are required, intermediate layers should be comb scratched and keyed and cured with NitoBond AR or HAR.
- xii. The finished concrete repair element of the works is to receive a curing agent in the form of Nitobond AR.
- xiii. When mixing the Fosroc material, pay particular attention to ensure thorough mixing by the use of a forced paddle mixer and that particular care given to the quantities of water that is used, all as per the manufacturer's instructions.
- xiv. Finishing coat to be applied using a Portland cement based stone premix with the addition of a Calcite crushed marble aggregate in the ratio of 12/1.
- xv. Shutter to be removed and all imperfections, voids, etc made good as necessary.
- xvi. Repairs to be finished with the use of either steel/foam/timber float, sponge or soft brush in order to emulate surrounding material.
- xvii. Ensure all surrounding finishes are clear of smears and debris.
- xviii. Leave area in a clean and safe condition.

PPE Required for Task	 Hard Hat EN397	 Hi-Vis Vest EN471	 Safety Foot ware EN 20345:2011:SB	 Hand Protection EN388	 Eye Protection EN166:1F	 Respirator EN140 / 143	 Ear Protection EN352
	X	X	X	X	X	X	X

Fosroc® Galvafruid

Zinc rich cold galvanising coating

Uses

To provide a galvanic protection on iron and steel. It can be used as a self-finish or as a durable rust inhibiting primer beneath selected top coats. It is recommended for the protection of structural steelwork, agricultural and construction plant and machinery, gates, railings, iron pipework and guttering, and the rust prevention of in-situ welding work.

Advantages

- Protects ferrous metals against rust
- Suitable as a primer or self-finish
- Easily applied by brush or roller

Description

Galvafruid zinc rich coating is formulated as an easily applied, cold galvanising protection against corrosion on all ferrous metals. Galvafruid has a mid-grey, matt finish.

Properties

Volume solids:	40%
Solids by weight:	80%
Zinc content by volume on dry film:	61%
Zinc content by weight on dry film:	90%
Drying times at 20°C —	
touch dry:	2 hours
hard dry:	24 hours
recoating time:	24 hours minimum

Specification Clause

The anti-corrosion primer / coating shall be Galvafruid, a zinc rich material specifically designed to provide a rust inhibiting protection to ferrous metalwork. It shall be applied to prepared surfaces in accordance with the manufacturer's written instructions.

Standards Compliance

Galvafruid complies with LU Standard 1-085 'Fire Safety Performance of Materials'.

Application Instructions

Preparation

All ferrous surfaces must be clean and free from oil, grease, mill scale, rust and existing coatings. This is best achieved by grit blasting, although thorough wire brushing can be sufficient. Some rust removers based on phosphoric acid tend to leave an electrically insulating film on ferrous metals and must not be used.



Mixing

Galvafruid must be thoroughly stirred to give a uniform product prior to application. It is recommended that the contents are stirred periodically during application to avoid settlement.

Galvafruid is supplied at the correct consistency for direct application from the tin but, should it be found necessary to thin, only Fosroc Thinner/Cleaner should be added, at a rate not exceeding 1 litre of thinners to 8 litres of Galvafruid.

Application

In order to obtain the protective properties of Galvafruid, it is important that the correct rate of application is achieved. The minimum application temperature is 5°C.

All prepared surfaces should be treated with one or more coats of Galvafruid. The material should be liberally applied without any attempt to brush or roll out. The required thickness of coating may be built up by successive applications of Galvafruid when the previous coat is completely dry.

Overcoating

Where required, Galvafruid may be painted to improve durability or to enhance appearance. The Galvafruid coating should not be rubbed down to obtain a smooth surface for finishing paints.

For general purposes, a good oil bound or alkyd paint should be used. Dekguard A Plus can be used to provide a decorative finish to Galvafruid; a 2-coat application is recommended.

Fosroc® Galvafruid

Where the work is subject to corrosive and marine conditions, however, a non-saponifiable finishing paint should be used, i.e. Chlorinated rubber paint. It is advisable to allow the Galvafruid coating to weather for at least 3 days before applying the finishing coat. Cellulose and bituminous paints are not generally suitable for over-painting Galvafruid.

Cleaning

Galvafruid should be removed from tools and equipment with Fosroc Thinner/Cleaner immediately after use. Dried material can only be removed mechanically.

Estimating

Supply

Galvafruid:	Pack of 6 x 400 ml tins Pack of 4 x 800 ml tins 1.9 litre tin
Fosroc Thinner/Cleaner:	0.5 litre tins

Coverage

Galvafruid:	
When used as a primer	16 m ² /litre
When used as a self-finish	8 m ² /litre

Limitations

Galvafruid is formulated for application to clean ferrous substrates and should not be used on rusty, corroded surfaces.

Galvafruid should not be applied over existing coatings.

Galvafruid should not be used on surfaces in contact with drinking water.

Galvafruid should not be used on surfaces exposed to soft water at temperatures above 60°C.

Galvafruid should not be used on surfaces treated with phosphoric acid based rust removers.

Galvafruid should not be overcoated with materials containing strong solvents such as chlorinated and aromatic hydrocarbons, esters and ethers.

Storage

Galvafruid and Dekguard A Plus have a shelf life of 12 months if kept in a dry store between 5°C and 20°C in the original, unopened container.

Precautions

Health and safety

For further information refer to appropriate Product Safety Data Sheet.

Fire

Galvafruid and Fosroc Thinner/Cleaner 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

Galvafruid:	41°C
Fosroc Thinner/Cleaner:	41°C

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FM 610 EMS 6113

Fosroc® Renderoc GP



constructive solutions

General purpose medium density concrete reinstatement mortar conforming to the requirements of BS EN 1504-3 Class R3

Uses

For the reinstatement of concrete where low permeability characteristics are required but where high compressive strength is not the most important consideration. Where higher compressive strengths and low permeability characteristics are required, Renderoc HB45 should be used.

Renderoc GP has been specifically developed as a general purpose repair mortar that can also be used as a render coat.

Renderoc GP is suitable for repair methods 3.1, 3.3, 4.4, 7.1, 7.2 as defined by BS EN 1504-3.

Advantages

- Compatibility with concrete of compressive strength 20 - 35 N/mm²
- Frequently obviates the need for formwork
- Extremely low permeability to water, carbon dioxide and chlorides
- Exceptional system of shrinkage compensation provides long-term dimensional stability
- Can be applied quickly and efficiently by wet spraying
- One component, pre-bagged to overcome site-batched variations
- Contains no chloride admixtures
- Shade can be varied with Renderoc Lightener / Darkener*

Description

Renderoc GP is supplied as a ready to use blend of dry powders requiring only the site addition of clean water to produce a highly consistent, lightweight repair mortar.

It is based on Portland cements, graded aggregates and chemical additives which provide a mortar with good handling characteristics while minimising water demand. The low water requirement ensures good strength gain and long-term durability.

Renderoc GP has been specifically engineered for vertical repair work. It can be applied in sections up to 70 mm thickness in vertical locations and up to 60 mm thickness in overhead locations in a single application and without the use of formwork. Thicker sections can be achieved by the use of formwork or can be built up in layers. Deep pockets can sometimes be filled in a single application dependent on the configuration of the pocket and the volume of exposed reinforcing steel.

Renderoc GP can be quickly and efficiently applied by the wet spray technique. Consult the local Fosroc office for further information.

The material should not be applied at less than 10 mm thickness.

*Refer to separate datasheet



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Fosroc® Renderoc GP

EN 1504-3:

Structural and non-structural repair methods 3, 4 and 7

Compressive strength	Class R3: ≥ 25 MPa
Chloride ion content	$\leq 0.05\%$
Adhesive strength by pull-off test	≥ 1.5 MPa
Thermal compatibility: freeze thaw cycling with immersion	≥ 1.5 MPa
Carbonation resistance	Pass
Elastic modulus	15.1 GPa
Reaction to fire	Class A1
Dangerous substances	Complies with 5.4

Specification clause

The repair mortar shall be Renderoc GP, a one component, medium density cementitious mortar, conforming to the requirements of BS EN 1504-3 Class R3. The cured mortar shall achieve a compressive strength of 15 MPa at 1 Day, 30 MPa at 28 Days and a drying shrinkage of <300 micro-strain at 7 days. It shall be able to be applied in sections

up to 70 mm thickness in vertical locations and up to 60 mm thickness in overhead locations in a single application without formwork. The product shall be mixed, applied and cured in accordance with the manufacturer's written instructions to a correctly prepared substrate.

Fosroc® Renderoc GP

Properties

The following results were obtained at a water: powder ratio of 0.18 and at a temperature of 20°C unless otherwise stated.

Test Method	Standard	EN 1504 R3 Requirement	Test Result
Compressive strength	EN 12190:1999	≥ 25 MPa	@ 1 Day 15 MPa @ 28 Days 30 MPa
Bond strength by pull off:	EN 1542:1999	≥ 1.5 MPa	1.8 MPa
Chloride ion content:	EN 1015-17:2000	≤ 0.05 MPa	0.03%
Freeze thaw cycling:	EN 13687-1:2002	≥ 1.5 MPa	1.6 MPa
Resistance to carbonation d_k	EN 13295:2005	$d_k \leq$ ref concrete	Conforms
Fire rating	EN 1504-3 cl. 5.5	-	Class A1 Non-Combustible
Flexural strength	BS 6319 Pt 3:1990	-	7.1 MPa @ 28 days
Setting time	BS4551:2005+A2:2013	-	Initial set: 3 1/2 hours Final set: 4 hours
Elastic Modulus	EN 13412	≥ 15 GPa	15.1 GPa @ 28 days
Fresh wet density	-	-	Nominally 1800kg/m ³
Shrinkage 25 x 25 x 285 prisms, 27 °C, 55% RH	-	-	< 300 microstrain @ 7days
Chemical resistance	-	-	The low permeability of Renderoc GP severely retards chemical attack in aggressive environments. The cured mortar is impermeable to acid gases, waterborne chloride ions and oxygen.
Build Characteristics (hand applied) Minimum thickness: Overhead: Vertical:	-	-	10 mm Up to 60 mm Up to 70 mm

Clarification of property values: The typical properties given above are derived from laboratory testing. Results derived from field applied samples may vary. Maximum build thickness is dependent on location of repair, water content and application technique.

Standard compliance

Renderoc GP complies with the class R3 according to EN1504-3, repair methods 3.1, 3.3, 4.4, 7.1 and 7.2.

Application instructions

Preparation

Form a square edge perimeter to the repair area using appropriate methods (feather edging must be avoided), break out the complete repair area up to a minimum depth of 10mm up to the square edge.

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Where breaking out is not required, roughen the surface and remove any laitance by light scabbling or abrasive-blasting.

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.

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 paying particular attention to the back of exposed steel bars. Abrasive blasting, hydrodem equipment, powered mechanical scraping or other suitable means 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 abrasive-blasting to remove corrosion products from pits and imperfections within its surface.

Refer to HSE information sheet CIS36 regarding control of exposure to construction dust, available at www.hse.gov.uk.

Reinforcing steel priming

Apply one full coat of Nitoprime Zincrich Plus and allow to dry before continuing. If any doubt exists about having achieved an unbroken coating, a second application should be made and, again, allowed to dry before continuing.



Fosroc® Renderoc GP

Concrete Priming

The concrete substrate should be saturated surface dry immediately before the application of the primer i.e. it should be thoroughly saturated with clean water and any residual surface water removed prior to applying Nitobond HAR.

Under severe drying conditions repeated soaking may be necessary to ensure the substrate is still saturated at the time of application of the primer.

Scrub Nitobond HAR into the surface.

Renderoc GP can be applied as soon as the primer becomes tacky. If the Nitobond HAR is too wet, overhead and vertical build-up of the Renderoc GP may be difficult.

In exceptional circumstances, e.g. where a substrate/repair barrier is required or where the substrate is wet or likely to remain permanently damp, Nitobond EP bonding aid should be used. Contact the local Fosroc office for further information.

Mixing

Care should be taken to ensure that Renderoc GP is thoroughly mixed. A forced-action mixer is essential. Mixing in a suitably sized drum using an approved Renderoc Mixing Paddle (MR4) with a slow speed (400/500 rpm) heavy-duty drill is acceptable for the occasional one-bag mix. Free-fall mixers must not be used. Mixing of part bags should never be attempted.

For normal applications, place 4.0 to 5.0 litres of drinking quality water into the mixer. With the machine in operation, add one full bag of Renderoc GP and mix, for a minimum of 3 minutes and a maximum of 5 minutes, until fully homogeneous.

The consistency may be adjusted by the addition of small amounts of water up to the maximum total water content of 5.0 litres.

Note that the powder must always be added to the water.

Mixing warning

As with other 'one pack' repair mortars, Renderoc GP may exhibit satisfactory handling characteristics even though inadequately mixed. This will result in a significantly lower level of performance or possible failure. It is therefore essential that mixing instructions are strictly adhered to with particular emphasis on the quantity of water used and the time of the mixing operation.

Application

Exposed steel reinforcing bars should be firmly secured to prevent movement during application.

Apply the mixed Renderoc GP by gloved hand or trowel, thoroughly compacting onto the primed substrate and around exposed reinforcement.

If sagging or slumping occurs the Renderoc GP should be completely removed and reapplied at a reduced thickness to a correctly primed substrate

Build-up

Additional build-up can be achieved by application of multiple layers.

The surface of the intermediate layers should be comb scratch-keyed and cured with Nitobond AR. Repriming with Nitobond HAR and a further application of Renderoc GP may proceed as soon as this layer has set.

Spray application

Renderoc GP can be quickly and efficiently applied by the wet spray technique. In circumstances where large areas of repair are required, the rapid placement and higher build attainable by this method offer economic advantages over hand-trowelling. The resultant repair also offers a generally more dense compound with enhanced mortar/substrate bond characteristics.

For further details on wet spray techniques contact the local Fosroc office.

Finishing

Renderoc GP is finished by striking off with a straight edge and closing with a steel float. Wooden or plastic floats, or damp sponges, may be used to achieve the desired surface texture. The completed surface should not be overworked. After spray application, the mortar may need to be 'cut back' to the required profile using a steel float and then finished with damp sponges as described above.

Low temperature working

In cold conditions down to 3°C, the use of warm mixing water (up to 30°C) is advisable to accelerate strength development. Normal precautions for winter working with cementitious materials should then be adopted. The material should not be applied when the substrate and/or air temperature is 3°C and falling. At 3°C static temperature or at 3°C and rising, the application may proceed.

High temperature working

At ambient temperatures above 35°C, the material should be stored in the shade and cool water used for mixing.

Curing

Renderoc GP is a cement-based repair mortar. In common with all cementitious materials, it must be cured immediately after finishing in accordance with good concrete practice. The use of Nitobond AR, sprayed on to the surface of the finished mortar in a continuous film, is recommended. A low pressure atomising sprayer is essential for applying the Nitobond AR. Any excessive run-off on verticals or drips on soffits should be removed by brush before they harden.

Large areas should be cured as trowelling progresses (0.5 m² at a time) without waiting for completion of the entire area.



Fosroc® Renderoc GP

In fast drying conditions, supplementary curing with polythene sheeting taped down at the edges must be used. In cold conditions, the finished repair must be protected from freezing.

Overcoating with protective decorative finishes

Renderoc GP is extremely durable and will provide long-term protection to the embedded steel reinforcement within the repaired locations. The surrounding parts of the structure will benefit from the application of a barrier/decorative coating to limit the advance of chlorides and carbon dioxide, bringing them to the same protective standard as the repair itself. Fosroc recommend the use of the Dekguard range of protective, anti-carbonation coatings. 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. Dekguard products may be applied over the repair area without prior removal of the Nitobond AR curing membrane. Other curing membranes must be removed prior to the application of Dekguard products.

Cleaning

Renderoc GP and Primer should be removed from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically.

Clean tools used with Nitoprime Zincrich Plus and Nitobond EP before material cures, using Fosroc Solvent 102.

Estimating

Supply

Renderoc GP:	25 kg bags
Nitoprime Zincrich Plus:	1.9 litre and 800 ml cans
Nitobond HAR	5 litre drums
Nitobond AR:	5 litre drums
Fosroc Solvent 102:	5 and 25 litre tins

Coverage and yield

Renderoc GP:	Approximately 16 litres / 25 kg bag (approximately 1.6 m ² at 10 mm thickness)
Nitoprime Zincrich Plus:	8 m ² / litre
Nitobond AR:	6 - 8 m ² / litre
Nitoprime HAR	3 - 4 m ² / litre

Notes: the actual yield per bag of Renderoc GP will depend on the consistency used. The yield will be reduced if the material is applied by a spray technique.

Limitations

Renderoc GP should not be used when the temperature is below 3°C and falling. Do not mix part bags. Due to the nature of Renderoc GP, the product should not be used in areas subjected to traffic (in these circumstances, Renderoc S should be considered).

Renderoc GP should not be exposed to moving water during application. Exposure to heavy rainfall prior to the final set may result in surface scour.

If any doubts arise concerning temperature or substrate conditions, consult the local Fosroc office.

Storage

Renderoc GP has a shelf life of 12 months from the date of manufacture if kept in dry storage in the original, unopened bags. If stored at high temperatures and/or high humidity the shelf life may be reduced to less than 6 months.

Nitobond AR and Nitobond HAR should be protected from frost.

Precautions Health and safety

For further information refer to the appropriate Safety Data Sheets available at www.fosroc.com

Fire

Renderoc GP is non-flammable.

Nitoprime Zincrich Plus 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 Plus:	41°C
Fosroc Solvent 102:	33°C

Environmental Data (EPD)

GWP Total, A1 – A3: 0.284 kgCO₂e per 1kg product.
GWP Total, A1 – D: 0.481 kgCO₂e per 1kg product.

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Fosroc® Nitobond AR and Nitobond HAR



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Polymer emulsion bonding agents

Uses

Nitobond AR and Nitobond HAR are recommended primers for the Renderoc cementitious repair systems.

Nitobond AR is also recommended as a curing membrane for Renderoc repairs. It may also be used as an economical dust proofer for non-trafficked cementitious surfaces.

Advantages

- Single component No site mixing
- Easy to use Ready to use straight from the container
- High bond strength Excellent bond strength between Renderoc systems and concrete
- Cost effective Economical in use
- Curing aid Nitobond AR can be used as a curing membrane for Renderoc systems

Description

Nitobond AR and Nitobond HAR are single component polymer emulsion systems designed for use with Fosroc Renderoc repair products. As a primer, Nitobond HAR has good vertical and overhead grab properties. Nitobond AR can be used as a curing membrane and also a concrete surface sealer in non-traffic areas.

Application instructions

Preparation

All surfaces should be clean and free from dust and contamination.

Application

Nitobond HAR is supplied ready for use when used as a bonding primer. Nitobond AR is supplied ready for use when used as a bonding primer or curing membrane. When used as a surface sealer Nitobond AR should be diluted 1:1 with water for the first coat and as supplied for the second coat. Application should be by spray, brush or medium pile roller. Care should be taken to ensure complete and thorough wetting of the surface.

Cleaning

Wash all equipment with clean water immediately after use.

Estimating

Supply

Nitobond AR	5 litre bottles
Nitobond HAR	5 litre bottles

Coverage and yield

As Primer

Nitobond AR & Nitobond HAR	4-6m ² /litre
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As Curing Membrane

Nitobond AR	6-8m ² /litre
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As Surface Sealer

Nitobond AR	6-10m ² /litre
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Limitations

Do not use Nitobond AR or Nitobond HAR when the temperature is below 5°C and falling.

Nitobond HAR is not designed for use as a curing membrane.

Storage

Store in dry conditions at 5°-25°C. Shelf life is 12 months if stored in dry conditions. Protect from frost.

Precautions

Health and safety

For further information refer to appropriate Product Safety Data Sheet.

Fire

Nitobond AR and Nitobond HAR are non-flammable.

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Fosroc® Nitoprime Zincrich Plus



constructive solutions

Single component zinc primer for use with Renderoc repair system

Uses

Nitoprime Zincrich Plus is the recommended anti-corrosion primer for exposed steel reinforcement for use with Fosroc concrete repair mortars.

It is fully compatible with all Renderoc mortars 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
- Economical - single component ensures almost no waste

Description

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

Specification clause

The exposed steel surfaces shall be prepared to a minimum of ST3 standard prior to application of Nitoprime Zincrich Plus, a single-component zinc-rich coating compliant with BS EN 1504-7. An unbroken 40 microns thick coating shall be applied in one or two applications as required to provide 'active' galvanic protection in accordance with the manufacturer's written instructions. It shall have a suitable viscosity to enable the coating to penetrate imperfections and pits within the surface of corrosion-damaged steel bars. The formulation shall be such that it allows the application of the repair mortar to proceed as soon as the coating is touch dry (generally after 1 hour at 20°C.) It shall be fully compatible with the Fosroc system of concrete repair products.

Standards compliance

Nitoprime Zincrich Plus complies with LU Standard 1-085 'Fire Safety Performance of Materials'.

BS EN 1504-7: Reinforcement corrosion protection method 11.1

Properties

Test method	Typical result
Specific gravity:	2.5
Recommended thickness per coat:	40 microns (dry)
Application thickness per coat:	100 microns (wet)
Drying times —	@ 20°C
Touch dry:	1 hours
Fully dry/recoat:	2 hours

Note: at temperatures below 20°C, the drying times will be slower.



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Nitoprime Zincrich Plus

BS EN 1504-7: Reinforcement corrosion protection
method 11.1

Corrosion protection	Pass
Dangerous substances	Conforms to 5.3

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 a minimum of ST3 standard, paying particular attention to the back of exposed steel bars. This should be achieved by suitable mechanical means, e.g. powered wire-brushing, high pressure jetting or alternative equivalent.

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

Application

The application of Nitoprime Zincrich Plus must take place as soon as possible to a dry steel surface after completion of the preparation work but always within 3 hours. The material should be stirred thoroughly before use in order to redisperse any settlement.

Apply one full and unbroken coat of Nitoprime Zincrich Plus by suitable brush, making sure that the back of exposed

Fosroc® Nitoprime Zincrich Plus

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 after 2 hours).

The application of concrete repair materials may proceed as soon as the Nitoprime Zincrich Plus is touch dry (generally 1 hour — see Properties).

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 Plus 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. If the 14 days in an external environment has been exceeded, inspect the coating for signs of damage, remove any dust by vacuuming or utilising oil free compressed air. If damage is detected, remove the affected areas and re-apply Nitoprime Zincrich Plus, lapping onto adjacent areas by a minimum of 20mm.

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, or is less than 3°C above the dew point. At 5°C static temperature or at 5°C and rising, the application may proceed.

Cleaning

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

Estimating

Supply

Nitoprime Zincrich Plus:	1.9 litre and 800ml cans
Fosroc Solvent 102 :	5 and 25 litre tins

Coverage

Nitoprime Zincrich Plus:	8 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 will be reduced.

Limitations

Nitoprime Zincrich Plus 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.

Storage

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

If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.

Precautions

Health and safety

For further information refer to the appropriate Product Safety Data Sheet

Fire

Nitoprime Zincrich Plus 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 Plus:	41°C
Fosroc Solvent 102:	33°C

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

Additional information

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



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. All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.

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