

Ferrorep®

Anti-corrosive coating for steel reinforcement of concrete elements



Description

Strong bonding anti-corrosive coating for steel reinforcement of concrete elements

Fields of application

- Concrete repairing applications (e.g. in columns), even in cases of advanced corrosion
- Also suitable for bonding old with new concrete or as a bonding agent of repairing mortars



Properties - Advantages

- Provides long-term protection against corrosion for the steel reinforcement, even in cases of advanced corrosion
- Exhibits high adhesion on concrete, mortars and steel
- Resistant to exterior conditions and solar radiation
- Protects from water penetration and aggressive atmospheric conditions
- High coverage
- Eco-friendly & user-friendly

Packing

20kg, 4kg and 1kg

Colour

Terracotta

Certificates – Test reports

- CE certification acc. to EN 1504-7
Certificate of Conformity No. 1922-CPR-0386
- Test reports by the external independent quality control laboratory Geoterra (No. 312/2014 & 2018/998)

Technical characteristics

Water requirement (by weight)	35%
Corrosion protection (EN 15183) <ul style="list-style-type: none"> • 10 cycles of humidity • 10 cycles in SO₂ saturated atmosphere • 5 days in water-salt solution atmosphere 	Pass No oxidation is observed on the steel bars covered with Ferrorep [®] in the sections within and outside of the concrete
Shear adhesion of coated steel to concrete (EN 15184)	Pass
Adhesion strength (EN 1542)	>1,5N/mm ²
Glass transition temperature T _g (EN 12614)	>+40°C
Consumption: • 50-70gr per linear meter of reinforcement element for thickness of 1mm (depending on the rod's diameter) • 1,3-1,5kg/m ² for bonding old to new concrete	

Application conditions & Curing details

Application temperature	+5°C min. / +35°C max.
Pot life (+25°C)	~60 minutes
Dry to recoat (+25°C)	~2 hours
Dry to overcoat with repairing mortar (+25°C)	6-24 hours
Full hardening	~7 days
<i>*Low temperatures and high humidity during application and/or curing prolong the above times, while high temperatures reduce them</i>	

Instructions for use

Substrate preparation

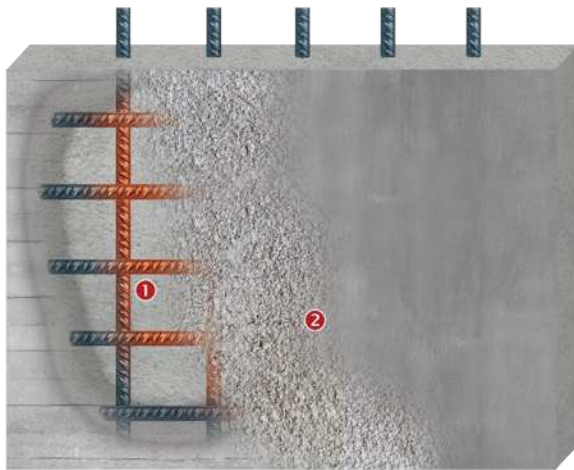
The surfaces must be stable, clean, dry and free of dust, rust, oil, grease, and loose materials. The reinforcement must be free of rust, dust and oil. For the oxidized rods of the reinforcement, it is recommended to remove completely the rust by sanding or, if this is not possible, by thorough brushing. On the existing rusty parts of the surface, it is recommended to locally apply the rust converter **Neodur**[®] **Metalforce**, after removing loose particles.

Application

Ferrorep[®] is added into clean water under continuous stirring in a ratio **Ferrorep**[®] : water – 10:3,5 w/w. The mixture is stirred for ~3 minutes with a low-speed electric stirrer, until it becomes homogeneous, without lumps. **Ferrorep**[®] is then applied onto the steel reinforcement by brush in at least two layers. Every new layer is applied once the previous one has dried. It is recommended that the thickness of each layer does not exceed 1mm, to ensure the proper curing of the material.

After ~6 hours (depending on the atmospheric conditions) the concrete element can be repaired with the repairing mortar **Neorep**[®], overcoating **Ferrorep**[®] at the same time.

Indicative system build-up



REPAIRING OF CONCRETE ELEMENTS

① Protection of steel reinforcement against corrosion:
Ferrorep®

② Repairing of the concrete element: **Neorex®**


a) Prior to the application of **Ferrorep®**, it is recommended to locally apply the special water-based rust converter **Neodur® Metalforce** on any existing rusty parts

b) Prior to the application of **Neorex®** and for enhancing its adhesion on the concrete element, **Ferrorep®** may also be applied as a bonding agent on the whole surface which is to be covered

Special notes

- **Ferrorep®** should not be applied under wet conditions, or if wet conditions are expected to prevail during the curing period of the product.
- Cement or any other materials must not be added in the mixture

Appearance	Mortar
Colour	Terracotta
Packing	20kg, 4kg and 1kg in plastic pails
Cleaning of tools – Stains removal	By water immediately after the application. In case of hardened stains, by mechanical means only.
UFI code	3DG0-U0TF-Q00R-762N
Storage stability	12 months, if kept in the original sealed packaging, protected from frost, humidity and exposure to solar radiation.

 1922	
NEOTEX S.A. V.Moira str., P.O. Box 2315 GR 19600 Industrial Area Mandra, Athens, Greece 14	
1922-CPR-0386 DoP No.: 4950-06 EN 1504-7 Ferrorep® Reinforcement corrosion protection	
Corrosion protection	Pass
Glass transition temperature	>+40°C
Shear adhesion of coated steel to concrete	Pass
Dangerous substances	Complies with 5.3

The information supplied in this datasheet, concerning the uses and the applications of the product, is based on the experience and knowledge of NEOTEX® SA. It is offered as a service to designers and contractors to help them find potential solutions. However, as a supplier, NEOTEX® SA does not control the actual use of the product and therefore cannot be held responsible for the results of its use. As a result of continual technical evolution, it is up to our clients to check with our technical department that this present data sheet has not been modified by a more recent edition.

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