VHDRS®
Very
High
Durability
Repair &
Prevention
System

From Project to Jobsite

ISO 9001 BUREAU VERITAS Certification

Certified Quality System since **FEBRUARY 1993**

MuCis® PROTEZIONE FERRO mono

ONE-COMPONENT ANTI-CORROSION SLURRY

CE approved – Certificate 1305-CPD-0808
EN 1504-7 - ZA.1

Description

MuCis® PROTEZIONE FERRO MONO is a powder which, once mixed with water in the proper proportions, forms a brushable slurry for the protection of the steel reinforcement. The product is characterised by the high passivating ability, and efficient anti-corrosion properties.
The product has excellent adhesion to the substrate, optimal durability and good mechanical resistances. It forms an effective barrier against the penetration of water and salts, but is still permeable to water vapour.
The powder MuCis® PROTEZIONE FERRO MONO is based on hydraulic binders, osmotic and complexing admixtures, passivation additives and MuCis® (Multiple and migrating corrosion inhibitors in vapour phase).

Advantages and characteristics

- Fast and easy to apply by brush
- Optimal adhesion to the substrate, and optimal durability
- The inhibitor protects the steel reinforcement in contact, but also the molecules will migrate through the concrete structure, and shall ionise also the steel in the adjacent area, not directly treated of repaired.

Fields of use

- As protection of the reinforcement steel after removing of the rust, and immediately prior to the application of structural repair mortars, especially when there is only minimal concrete cover, or when subjected to the particular aggression of de-icing salts, etc.
- Due to the high adhesion to steel and to each type of substrate, the product can be also used with the fixation of rebar stumps anchored into the concrete, mortar, stones,... .

Method of use

- Apply the slurry immediately after mixing, and within 30 minutes.
- For the protection of the sandblasted and dry steel reinforcement, apply by brush a layer of 1-2 mm, immediately before application of our structural repair mortars.
- In the case there is a longer period between the first protective layer, and the structural repair, apply on the cured first layer, a second layer, followed by the repair with a one-component mortar. In the case the repair mortar is two-components, the repair can be done at each moment, even after long period, without additional preparation, even after some days.
- Mix the powder with water in the correct proportions (about 0,3 lt per kg powder) till the desired consistency is obtained (in this way that the brush leaves a coating of 1-2 mm per layer). Mix always till the slurry is lump-free and homogeneous.
- The film-formation of the polymer in emulsion effectuates with temperatures above +5°+6°C; applications in colder climate should be postponed, or only performed with maximum attention.
- The product is compatible with all rheoplastic anti-shrinkage mortars, and especially recommended in combination with our two-components products.
- Keep the product in the original packaging, and always well closed.
- Read careful the safety indications on the packaging, or, eventually, consult the specific product safety datasheet.

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Remark Information according to 2003/53/CE.
Storage: storing possible during 12 months in original, unopened packaging, kept dry and protected, at temperatures between +5°C and +35°C. Do not use the content of already opened bags if there are any lumps.

Packaging

Pail of 15 Kg.
Pail of 3 Kg.

Characteristic technical data (typical values)

Compressive strength	N/mm^2	25 (28 d.)
Flexural strength	N/mm^2	6,5 (28 d.)
Modulus of elasticity	N/mm^2	8.000 (28 d.)
Adhesion to concrete	N/mm^2	2 (28 d.)
Pull-out rebars	N/mm^2	> 10 (28 d.)
Carbonatation in time	8 years mm	0,5
	18 years mm	4
	25 years mm	8
Resist. to penetration of CO_2	μ	4.600
Watervapourpermeability coeff.	μ	68
① Res. Frost/thaw	gr/m^2	350
② Permeab. To chlorides	Coulomb	300
Type mortar		slurry
N. components		1
Advised layer thickness	mm	2
Application		hand
Curing : wet		NO
Curing : protected		SE
Typical application		VHDRS/MuCis
Setting time		normal
hardening		normal
Compensation shrinkage		YES
Consumption	$Kg/m^2/mm$	2

1 N/mm² = 1 MPa = 10,19 Kg/cm²

✱ The formulation for this type of products can be also made with the addition of corrosion inhibitors MuCis®
① Freeze and thaw resistance in the presence of salt. SIA 162/1/91 gr/m² (< 600 gr/m² = very high freeze and thaw resistance)
② Chlorides permeability. FHWA/RD/81 (100÷1000 COULOMB = very low chlorides permeability)

SE Depending on the applicative conditions (rain, sun, hot temperatures, humidity)

VHDRS Very High Durability Repair & Prevention Systems

VHDRC Very High Durability Reinforced Concretes

MuCIS® Multiple Corrosion Inhibiting Synergies

AED Very High Deformation Energy

Safety indications Read carefully the safety indications on the packaging, or consult the relevant Material Safety Datasheet of this product.

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