

Release 1: 06/11/2017

RP4010-MCI ferro protect migrating corrosion

Preventive anti-corrosion protection

- of reinforced concrete constructions
- Creates a protective passivation layer
- Restores the alkalinity of carbonated concrete at high pH levels
- Increases the lifespan of concrete structures

inhibitor

 Ready-to-use & easy-to-apply













RP 4010•MCI FERRO PROTECT

migrating corrosion inhibitor

DESCRIPTION

Water-based solution with very high penetrating ability that inhibits corrosion of steel reinforcement of concrete structures. It penetrates deeply (up to 50mm in 30 days) in concrete structures creating a passivation layer (anodic inhibitor) around the steel reinforcement, thus protecting from chloride-induced corrosion and increasing lifespan.

RP 4010•MCI FERRO PROTECT contributes to the suspension of the initiation of corrosion of the reinforcement, while in already damaged structures it reduces the rate of corrosion. At the same time, for repairing or/and conservation work of reinforced concrete structures, RP 4010•MCI FERRO PROTECT restores the alkalinity of carbonized concrete to high pH levels.

It fully complies to principle 11 (method 11.3) of the European standard EN 1504-9.

APPLICATIONS

It is applied preventively during concrete repair works, as well as for the protection of concrete structures that are exposed to corrosive environments (coastal areas, swimming pools, water reservoirs, fair-faced concrete, bridges, etc.).

Also for the preventive protection of visible concrete buildings of high aesthetic value.

PROPERTIES / ADVANTAGES

- Ready-to-use & easy-to-apply.
- High ability of diffusion in concrete, at depth up to 50mm in 30 days.
- Inhibits corrosion in new concrete structures and decreases the rate of corrosion in existing ones.
- Increases the lifespan of the concrete structures.
- It doesn't affect the water-vapour permeability of the structures and the colours of the surfaces.
- Certified by the School of Chemical Engineering (Materials Science & Technology) of the National Technical University of Athens, according to ASTM G-109, ASTM C-876, ASTM G-59 standards, as well as spectrometry and electron microscopy methods.
- Aqueous solution, non-flammable.
- Does not contain nitrites and it is non-toxic. It is completely environment and user friendly.

HARMONIZED STANDARDS / REGULATIONS

RP 4010•MCI FERRO PROTECT fully complies to principle 11 (method 11.3) of the European standard EN 1504-9.



Chart 1. Current density according to ASTM G-109

Chart 2. Polarization resistance according to ASTM G-59



APPLICATION INSTRUCTIONS

- Surfaces must be solid, dry and clean from dust or dirt.
- If layers of repair mortars are to follow, the surfaces should be adequately roughened by sandblasting or water blasting, and in cases of visible concrete elements, cleaned by low pressure water blasting.
- Surfaces should be allowed to dry before application.
- RP 4010•MCI FERRO PROTECT is applied by roller, brush or spray, in 3 or more consequent layers, allowing each layer to dry before applying the next.
- Satisfactory protection is achieved by applying at least 0.5 kg/m².
- After application the surfaces should be protected from rain for the first 4-6 hours, while they should be allowed to dry completely for 24 hours before starting repair work (cleaning of any RP 4010-MCI FERRO PROTECTresidues is not required).

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

RECOMMENDATIONS

- The product is ready to use. Do not mix with water or solvents.
- Temperature during application should be between +5°C and +35°C.

TECHNICAL CHARACTERISTICS	
PRODUCT CHARACTERISTICS	
Appearance	liquid
Colour	clear
Density	1.01 kg/lt
рН	> 11
APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)	
Dilution	ready-to-use product
Maximum penetration depth in concrete with N/T=0.5	50mm
Consumption	approximately 0.5-1.0 kg/m ²

Note: Measures were carried out in laboratory environment conditions. The different conditions on site (temperature, humidity, wind, substrate absorption) may affect the properties of the material.

SAFETY PRECAUTIONS

- The product is highly alkaline (pH>11).
- Always wear appropriate personal protective equipment for eyes and skin (protective clothing, gloves and goggles).
- If skin contact occurs, rinse well with plenty of clean water.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Consult product's Safety Data Sheet for further instructions on safety handling.
- PRODUCT FOR PROFESSIONAL USE.

PACKAGING - STORAGE

Available in:

• 1kg, 5kg and 20kg plastic containers.

Storage: 24 months from production date, if stored in original, sealed container, protected from direct sunlight and frost.

LEGAL NOTICE

The technical characteristics and recommendations for the use and application of the FINOMIX range of products are based on the knowledge and experience of the company. The above information shall be considered merely indicative and subject to confirmation after long-term practical application. For this reason, anyone who intends to use the product must ensure that it is suitable for the envisaged application. Since the specific site conditions during the applications are beyond the control of our company, the user alone is fully responsible for any consequences deriving from the use of the product. FINOBETON S.A. (FINOMIX) has the right to modify the properties of its products without prior notice. This release voids any previous publications issued for this technical specifications sheet.

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