

EUCOREPAIR FERROPROTEC

Corrosion-inhibiting coating for steel reinforcements

DESCRIPTION

EucoRepair Ferroprotec is a single component, pre-dosed, cement and polymer based coating indicated for inhibiting the corrosion of steel reinforcement bars, and as an adherence bridge for structural repairs. It is supplied ready-to-use, requiring only the addition of the prescribed amount of water followed by homogenization.

TECHNICAL CHARACTERISTICS OF THE

TESTS	RESULT	UNIT
Density of the mixture	2.00 – 2.1	g/cm ³
Workability at 25°C	>40	minutes
Water per kg of product (powder)	190 - 200	ml

ADVANTAGES

- Excellent adhesion on steel framework
- Protects steel reinforcements by passivation, cathodic inhibition and by forming an impermeable barrier
- Prevents the deterioration of structural elements, increasing the durability of reinforced concrete
- Reduction of maintenance costs
- Adhesion bridge for repair mortar

UTILIZATION

- On steel reinforcement bars:
 - Undergoing restoration;
 - In unfinished structures, when steel bars are exposed to inclement weather, for protection of start rebars;
 - Subject to highly aggressive marine or industrial environments
- As an adhesion bridge for repair mortar in concrete structures

For other applications, consult the Technical Department (sac@viapol.com.br).

USAGE INSTRUCTIONS

Preparation of Substrate

The steel reinforcements must be clean, free of rust, scales and other encrustations. The cleaning can be done manually with a steel brush, or by mechanical sanding/grinding using abrasive sanding paper of average grammage; or by a process of abrasive blasting, in order to remove all oxidized material across the entire surface of the steel bars. This cleaning should approach the “white metal” standard.

If the corrosion occurred due to chlorides, the steel should be cleaned by means of high pressure hydro-blasting immediately after abrasive blasting, thus ensuring the removal of all corrosive substances from cavities and imperfections. In these circumstances the concrete substrate should also be washed.

Bars which have lost more than 10% of their section should be replaced, or reinforced with a new steel bar, in accordance with the structure's restoration project.

Preparation of the Product

Place the desired amount of product in a suitable recipient and add water according to the indicated dosage. Mix mechanically using a low rotation mixer (250 rpm) for 3 minutes, or mix manually for 5 minutes in a vigorous rhythmic manner, preventing the formation of lumps, until a fluid mortar is obtained. This is to be followed by the application of **EucoRepair Ferroprotec**.

Application of the Product

Steel reinforcement bars

The product is to be applied in a painting action using a medium bristle flat brush. To facilitate access to the entire surface of the bar use a small narrow brush.

Two coats of the product are to be applied, with an interval of 1 to 3 hours between coats. The final thickness of the coating should be approximately 1.5mm.

The application of repair mortar should occur no more than 24 hours after application of the **EucoRepair Ferroprotec**. In industrial or marine environments the interval between the application of these two products should be as short as possible.

When used as an adhesion bridge

On the clean substrate, free of dust, oils and loose particles, with rugosity of the CSP 7-9 (ICRI) standard, and saturated but dry on the surface with no water shine, apply a single coat of **EucoRepair Ferroprotec** with a flat brush, covering the entire repair area uniformly with a coating 1mm to 1.5mm in thickness. Proceed with the application of the repair mortar before the **EucoRepair Ferroprotec** has dried. If this occurs, a new coating should be applied.

The tools and equipment used in the application should be washed in running water soon after use, before the curing of the **EucoRepair Ferroprotec**.

USAGE RESTRICTIONS

- Do not use the product for purposes other than those described in the datasheet
- Avoid application in direct sunlight when the product is used as an adhesion bridge

CONSUMPTION

Consumption of **EucoRepair Ferroprotec** in the mixture is approximately 2.050kg/m²/mm. A 1kg bag with 20% fo water yields approximately 0.58m² at a thickness of 1mm.

Table showing yield of mixture per linear meter of steel bar

Diameter of bar	8 mm	10 mm	12.5 mm	16 mm	20 mm	25 mm	32 mm
Kg per meter of steel bar	0.080	0.10	0.13	0.16	0.20	0.25	0.32

Note: Consumption may vary depending on texture and rugosity of substrate.

PACKAGING / STACKING

Packaging: Box containing 5 bags of 1kg each.

Stacking: In original boxes: Maximum 4 units

VALIDITY / STORAGE

Nine (09) months from date of manufacture, in original intact packaging, in a covered, dry, ventilated location, far from sources of heat and humidity, and not in direct contact with substrate. The maximum storage temperature is 35 °C.

SAFETY RECOMMENDATIONS

Prior to starting work consult the SISCO (Safety Information Sheet for Chemical Products).

Use adequate PPE such as gloves, facial protection mask and safety eyewear and footwear.

Store the product out of the reach of children and domestic animals.

In closed/indoor or poorly ventilated areas it is imperative to ensure circulation of the air by means of forced ventilation during application and drying of the product.

In case of contact with the skin, wash the region with neutral soap and water.

In case of contact with the eyes, wash copiously with potable water and seek medical assistance.

In the event of irritation of the skin or eyes, or ingestion of the product, seek medical assistance immediately, stating the type of product involved.

In case of ingestion, it is important not to induce vomiting..

ENVIRONMENTAL PRECAUTIONS

Dispose of waste materials and residuals in an appropriate location in accordance with regulations arising from local environmental legislation in force and the nature of the material or product. Do not reuse empty packaging.

Note: The information contained in this datasheet is based on our best knowledge and is provided for your help and guidance. We need to point out that the performance of our products depends on the preparation condition of the surface and the storage and application of the product, factors not subject to our control. The consumption of the products in practice depends on the application technique, the condition of the equipment used, and the surface to be coated. We do not, therefore, accept any responsibility of any nature regarding the consumption and performance of our products arising from inadequate storage or use of the products. For further clarification please consult our Technical Department.

Viapol reserves the right to alter the specifications and/or information contained in this datasheet without prior notice.