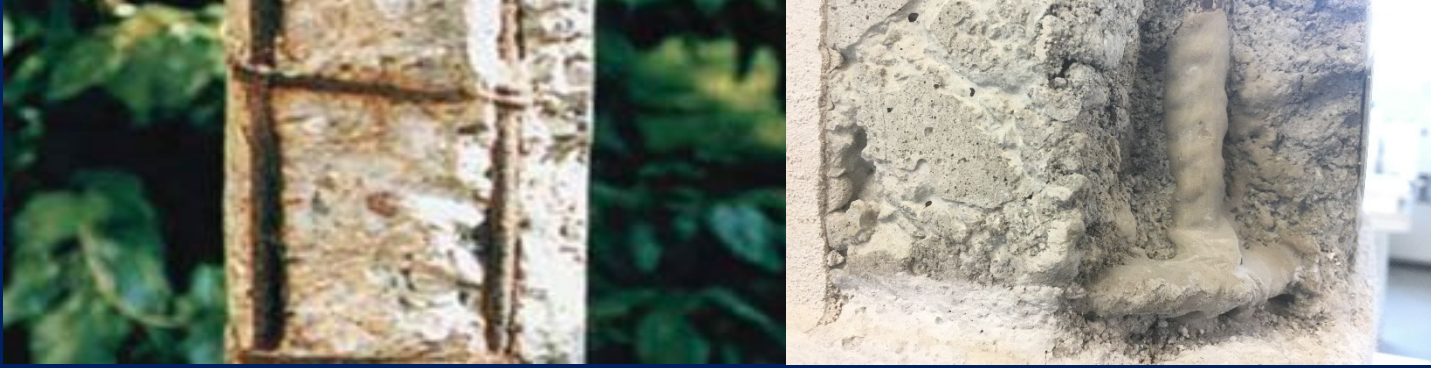




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PROTEK

Single component passivating inhibitor in powder form for corrosion protection of rebar



DESCRIPTION

PROTEK is an anticorrosive passivating compound based on modified cementitious polymers and corrosion inhibitors, ready to use, for the corrosion protection of reinforcing bars..

FIELDS OF APPLICATION

- Protective re-alkalizing of reinforcements
- Protective waterproof and re-alkalizing of reinforced concrete surfaces
- Adhesion primer for structural repair mortars (GRAUTEK line)

ADVANTAGES

- Corrosion protective
- High adhesive power to metal and concrete
- High waterproof and alkalizing power
- Easy applicability
- High alkalinity
- High durability
- Versatility of use, even in difficult environmental and climatic conditions.

TECHNICAL FEATURES

Physical state	powder
Maximum aggregate size	0,2 mm
Dry residue (EN 480-8)	100%
Colour	grey
Dough consistency	thixotropic
Density	2.800 kg/m ³
Mix pH	> 12
Application temperature	from +5 °C to +35 °C
Dough duration	30 min
Waiting time between two hands	1 h
Tempo di attesa prima di applicare la ripresa di getto e quindi la malta da ripristino	6 h
Minimum thickness	2 mm

Compliant with EN 1504-7 (corrosion protection of reinforcement) and EN 1504-9 (products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use of products and systems).

Support adhesion (EN 1542)	≥ 2
Resistance to bar slippage (EN 15184)	specification exceeded
Corrosion protection (EN 15183)	specification exceeded
Dangerous substances	absent

TECHNICAL DATA SHEET



TEKNA CHEM S.p.A.

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METHODS OF USE AND TREATMENT OF REINFORCEMENTS

Before preparing and applying PROTEK, make sure that the substrate is suitable for receiving the product:

1. REINFORCEMENT PREPARATION

The bars to be treated must be clean, completely free from rust, free of efflorescence, oxidation and any loose and friable parts. The same applies to the concrete surfaces which must be free from loose, friable and dirty parts. This cleaning can be carried out either by sandblasting or by metal brush in order to bring the bars to a clean metal or compact surface.

2. PREPARATION

Mix PROTEK with clean water at a rate of 20% ($\pm 2\%$ depending on the desired consistency), slowly and under agitation until the product is completely homogenized, without lumps. Depending on the application temperature, the product remains workable for about 30 minutes.

3. APPLICATION

Apply the product, to homogeneously cover the entire iron surface or the concrete surface to be protected, by brush about 1 mm thick and the second coat as soon as the first one is dry (about after 1h depending on the temperature). When the PROTEK is hardened (after approx. 6h depending on the temperature), proceed with Epotek Ripresa and then the repair mortar (GRAUTEK line).

YIELD

Approx. 100 g of product per 1 meter of reinforcement \varnothing 10 mm.

PACKAGING

PROTEK is available in:

- 5 kg bags contained in a 25 kg sack
- 25 kg bags
- 5 kg buckets (on request)

STORAGE

The product keeps its characteristics in the original packaging and correctly stored under cover in a dry place, at a temperature between $+5^{\circ}\text{C}$ and $+35^{\circ}\text{C}$.

WARNING

Use rubber gloves and goggles when working with and cleaning tools.

Fresh PROTEK can only be removed from brushes with water; once cured it can only be removed mechanically.

LEGAL NOTES

The information contained in this technical data sheet, while representing the most advanced stage of knowledge, does not exempt the user from performing accurate preliminary tests under their own conditions of use and operation. We therefore decline all responsibility for the improper use of the product.



Demolition of deteriorated concrete



Irons cleaning



Application of PROTEK on irons



PROTEK after 1 h



EPOTEK RIPRESA



Restoration mortar (GRAUTEK)



TECHNICAL INDICATIONS

The application of corrosion inhibitors must be evaluated according to

- of the specific type of degradation;
- the mortar/concrete to be used
- the possibility of macro-coupling.

If the deterioration is caused by carbonation, the complete removal of the degraded portions of concrete is not sufficient to re-pass the reinforcement. It is always a good idea to apply at least 1 coat of Protek, then Epotek Ripresa and then the repair mortar.

Rate B.009.020.02

Restoration of reinforcing bars - Passivation of reinforcing bars

Performed by application of single-component, penetrable cementitious mortar based on hydraulic binders, silica powders, corrosion inhibitors and acrylic polymer dispersion.

SPECIFICATION ITEM

Supply and installation of protective treatment of reinforcing irons, exposed to the previous operations of demolition of the concrete cover and sandblasting or mechanical cleaning, by brush application of two coats of single component anticorrosive cementitious mortar (such as PROTEK by TEKNA CHEM S.p.A.), able to bring the pH above 12, the minimum level to ensure the non-corrosion of the iron. The product must meet the minimum requirements of EN 1504-7.

The product shall have the following performance characteristics:

Mixing ratio	100 parts PROTEK with 20-22 parts water (1.0-1.1 l water per 5 kg bag)
Dough volume mass (kg/m ³)	2.800
Dough pH	> 12,5
Permitted application temperature	From +5°C to +35 °C
Dough duration	30 min (at +20°C)
Waiting time before applying repair mortar	6 h (at +20°C)
Support adhesion (EN 1542) (MPa)	≥ 2
Resistance to steel bar slippage (EN 15184)	specification exceeded
Corrosion resistance (EN 15183)	specification exceeded
Consumption (g/m)	100 g of product per meter of reinforcement Ø 10 mm (2 mm of product applied)



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