

# Betonfix KIMIFER

Cement mortar for steel reinforcement rebars protection used in the reinforced concrete repairing treatment.



Scheda Tecnica rev.01\_05/2025

## DESCRIPTION

Betonfix KIMIFER is a single-component re-alkalizing, anti-corrosive hydraulic mortar for steel reinforcing bars protection.

It is composed of a synergic system of corrosion inhibitors for high protection against the steel corrosion. Betonfix KIMIFER is non-toxic (chrome-free).

Betonfix KIMIFER is strongly adhesive to concrete and iron surfaces, it has high alkaline properties and excellent resistance to water and harmful gases in the atmosphere. Its rapid setting reduces times of laying when restoring reinforced concrete structures with visible reinforcements.

## ADVANTAGES

- High alkalinity, excellent impermeability to water and to atmospheric harmful gases.
- Strong adhesion: high performance adhesion bridge between concrete and steel reinforcement bars.

## USES

Betonfix KIMIFER is used as an anti-corrosive protection for exposed reinforcing bars to restore deteriorated reinforced concrete structures together with non-shrink Betonfix mortars.

## CERTIFICATIONS

Betonfix is CE marked according to the requirements of EN 1504-7 for protection against corrosion of reinforcement.



## WORKS

Cortical restoration and protection of degraded reinforced concrete structures with exposed metal reinforcement (SA65)

## APPLICATION

|                                                                                   |                                   |                                                                                     |                                |
|-----------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|--------------------------------|
|  | Paint roller or brush application |  | Mixing water:<br>1,75 lt/ 5 Kg |
|-----------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|--------------------------------|

Betonfix KIMIFER is ready-to-use on the addition of drinking water, in the quantity shown in the table.

Exposed metal reinforcements rebars have to be properly cleaned (until obtaining the "white metal" condition), removing adequate portions of concrete. Mix Betonfix KIMIFER with potable water until you get a dense but brushable consistency, apply by brush on steel reinforcement bars. Start the renovation process using Betonfix mortars.

## CONSUMPTION

Approximately 140 gr/ml per rod with a diameter of 14 mm for a total thickness of 2 mm.

## PACKAGING

5 Kg plastic bucket

## STORAGE

Protect from humidity. Store the product in a dry, sheltered place. Stored in these conditions and in unopened containers, the product remains stable for 12 months.

| CHARACTERISTICS                   | VALUE                        |
|-----------------------------------|------------------------------|
| Appearance                        | Powder                       |
| Colour                            | Light yellow                 |
| Apparent specific weight uni 9446 | $1,8 \pm 0,1 \text{ g/cm}^3$ |
| Max dimension of inerts           | 0,4 mm                       |
| Ph of mixture                     | $12 \pm 0,5$                 |
| Minimum application temperature   | +2 °c                        |
| Flammability                      | No                           |
| Toxicity                          | No                           |

| CHARACTERISTICS                                               | EN 1504-7 LIMITS                                                                                                                                                             | VALUE      |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Corrosion protection test, EN 15183:2007                      | The test is considered passed if the coated areas of the steels are free of corrosion and if rust creep at the ground plate edge < 1 mm.                                     | OK         |
| Shear adhesion of coated steel to concrete, EN 15184:2008     | The test is considered passed if the bond stress determined with the coated bars is in each case at least 80% of the reference bond stress determined for the uncoated bars. | OK (82,6%) |
| Determination of glass transition temperatures, EN 12614:2006 | None                                                                                                                                                                         | 123,8 °C   |

## WARNING

Product for professional use.

Given the possibility that different supplies of the same raw materials have slightly discordant colors, including a lot of production and the other may be minor color variations that do not affect in any way the technical performance of the products supplied.

Do not remix by adding water to the product when it has already started to set.

Do not add concrete, inert materials, additives or other Betonfix mortars.

Before using, check bags have not been damaged, and do not use the product if there are any lumps. Use the entire contents once the bag has been opened.

Do not apply to sunny surfaces, at temperatures below +2 °C or above +35 °C.

For further information and advice on safe handling, storage and disposal of chemical products, the user must refer to the most recent Safety Data Sheet, containing physical, ecological, toxicological and other data related to safety.

All technical data shown in this Technical Data Sheet are based on laboratory tests. Actual measurement data may vary due to circumstances beyond our control.

The information and requirements indicated in this Technical Data Sheet are based on our current knowledge and experience and are to be considered, in any case, purely indicative. They cannot guarantee the final result of the applied product and they have to be confirmed by exhaustive practical applications; therefore the user must test the suitability of the product for the intended application and its purpose. Users must always refer to the latest version of the local technical data sheet related to the product.

## TECHNICAL SPECIFICATIONS

SK65 - Cortical restoration and protection of degraded reinforced concrete structures with exposed metal reinforcement

Accurate removal of degraded and inconsistent concrete by hammering until a you see a compact substrate.

Remove concrete from metal reinforcements by means of a needle gun.

Positioning of new collaborative metal reinforcement in case of noticeable oxidation of existing irons with a strong reduction of the section and grout with special epoxy resins.

Hydro-sandblasting or sandblasting of concrete and metal reinforcement. Wet the area to be treated and remove any stagnant water at the time of casting.

For the treatment of the rods, use Betonfix KIMIFER mortar by Kimia S.p.A. or similar product. The product will be applied by brush in a double coat with a total consumption of about 0.5 Kg/m<sup>2</sup>. The first coat will be spread on the metal reinforcement to be protected, the second coat will be applied, as an adhesive bridge, also on the concrete to be restored.

The ready-to-use single-component re-alkalizing, anti-corrosive hydraulic mortar for steel reinforcing bars protection will be prepared and applied scrupulously following the indications given on the technical sheets supplied by the Producer and must have the following characteristics:

- Appearance: Powder.
- Colour: Light yellow
- Apparent specific weight UNI 9446: 1,8 ± 0,1 g/cm<sup>3</sup>.
- pH of mixture: 12 ± 0,5
- Minimum application temperature: +2°C
- Flammability: no
- Toxicity: no

The mortar will be CE marked according to EN 1504-7, complying with characteristics required for materials used as protection against corrosion. The Producer will be able to provide specific reports relating to the initial type tests performed at notified laboratories for the most relevant data.

For the cortical restoration will be used Betonfix FB by Kimia S.p.A. or similar product, for the skimming coat Betonfix RS by Kimia S.p.A. or similar product and for a final anti-carbonation protective coating Kimicover BLINDO by Kimia S.p.A. or a similar product will be used.