



FAST SETTING SHRINKAGE COMPENSATED THIXOTROPIC MORTAR FOR CORTICAL RESTORATION OF CONCRETE BY APPLYING A SINGLE COAT OF MORTAR AT A VARIABLE THICKNESS BETWEEN 1 AND 40 MM.

## PRODUCT DESCRIPTION

Fixativ R4 Fast is a one-component, thixotropic mortar with very low emission of volatile organic compounds made from special hydraulic binders, fine selected aggregates, synthetic poly acrylonitrile fibers, synthetic polymers and special admixtures. After mixing with water, the product forms a mortar with good workability. It is applied by trowel in a single layer from 3 to 40 mm thick to repair and smooth over concrete. Fixativ R4 Fast hardens without shrinking and is characterized by its excellent adhesion to concrete substrates. After hardening, Fixativ R4 Fast has the following characteristics:

- Excellent bond strength to both old concrete
- High dimensional stability and, therefore, low risk of cracking
- Thermal compatibility to freeze/thaw cycles
- Low permeability to water.

## SUITABLE SUBSTRATES

- Concrete
- Cement Mortar.

## FIELD OF APPLICATION

- Rapid restoration of corners and front sides of concrete balconies which have been damaged by the oxidation of the rebar.
- Fast repairs to damaged corners, concrete beams, pillars and concrete panels.
- Rapid repairs to precast concrete elements damaged during installation and transport.
- Repairs to damaged concrete piping.
- Rapid repairs to superficial defects present in concrete castings such as honeycombs, holes, cold joints, etc.

## LIMITATIONS

- Do not apply on smooth substrates: roughen surfaces beforehand.
- Do not apply on dry substrates.
- Do not add cement or admixtures.
- Do not add water to the mix to make it more workable once it starts to set.
- Do not leave bags exposed to the sun before use.
- Do not use if the temperature is lower than +5°C.
- Do not use if the bag is damaged or if it has been opened previously.
- Do not use for fixing elements accurately in place.



## APPLICATION PROCEDURE

### **A) Preparation of the substrate**

- Remove all deteriorated and loose concrete to form a solid, rough and strong substrate. Any areas previously repaired and which are not perfectly bonded must also be removed.
- Remove all dust, rust, cement laitance, grease, oil and paint from the concrete and reinforcement rods by sandblasting or hydro-sandblasting.
- Treat reinforcement rods with Ferropri-mer 1K or 2K, according to the procedure given in the Technical Data Sheet of product.
- Saturate the substrate with water.
- Before carrying out repairs, wait until excess water has evaporated.

### **B) Preparing the product**

Pour approximately 5.5 liters of clean water into a container and slowly add a 25 kg bag of Fixativ R4 Fast while mixing. Carefully mix the blend for several minutes then remove any powder which has stuck to the sides and bottom of the container. Add more water to obtain the consistency required without exceeding the recommended amount, approximately 6-6.5 liters. Mix again for several minutes to form a well-blended, plastic consistency, lump-free mixture. Fixativ R4 Fast remains workable for around 15 minutes at +10°C to +25°C.

### **C) Applying the product**

Apply a layer of mortar from 3 to 40 mm thick with a trowel or putty knife; no formwork is required. As soon as the mortar starts to set, tamp the surface with a sponge float. The waiting time required before carrying out this operation depends on surrounding weather conditions. To paint and protect the surface, apply a coat of an elastomeric product or an acrylic product.

## COVERAGE / CONSUMPTION

The consumption is approximately 1.5kg/m<sup>2</sup> at 1 mm thickness.

## PACKAGING

Fixativ R4 Fast is supplied in:  
– 25 kg paper bags.

## SHELF LIFE-STORAGE

Original sealed bags of this product are guaranteed to be of first quality for 12 months if stored off of the ground in a dry area. High humidity will reduce the shelf life of the bagged product.

## SAFETY INSTRUCTION

Fixativ R4 Fast is irritant; it contains cement that when in contact with sweat or other body fluid causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention. It is recommended to use protective gloves and goggles. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet. **PRODUCT FOR PROFESSIONAL USE.**

## TECHNICAL DATA

| Product identity                                                                              |                           |
|-----------------------------------------------------------------------------------------------|---------------------------|
| Class according to EN 1504-3                                                                  | R4                        |
| Type                                                                                          | PCC                       |
| Consistency                                                                                   | powder                    |
| Color                                                                                         | grey                      |
| Maximum diameter of aggregate (EN 1015-1) (mm)                                                | 0.4                       |
| Bulk density (g/cm <sup>3</sup> )                                                             | 1.200                     |
| Dry solids content (%)                                                                        | 100                       |
| Ion chloride content (%)                                                                      | ≤ 0.05                    |
| Application data (at +23°C and 50% R.H.)                                                      |                           |
| Colour of mix                                                                                 | grey                      |
| Mixing ratio                                                                                  | 26-28%                    |
| Consistency of mix                                                                            | thixotropic – trowellable |
| Density of mix (kg/m <sup>3</sup> )                                                           | 2,000                     |
| pH of mix                                                                                     | 12                        |
| Application temperature                                                                       | +5 to +35°C               |
| Pot life of mix                                                                               | approx. 15 minutes        |
| Waiting time before finishing with float                                                      | approx. 30 minutes        |
| Setting time                                                                                  | approx. 30 minutes        |
| Final performances                                                                            |                           |
| Compressive strength (MPa)                                                                    | 50                        |
| Flexural strength (MPa)                                                                       | 9                         |
| Compressive modulus of elasticity (GPa)                                                       | 25                        |
| Bond strength on concrete (substrate type MC 0.40) according to EN 1766 (MPa)                 | ≥ 2                       |
| Thermal compatibility measured as bond strength according to EN 1542 (MPa)                    | ≥ 2                       |
| Capillary absorption (kg/m <sup>2</sup> ·h )                                                  | ≤ 0.4                     |
| Impermeability expressed as coefficient of permeability to free water (kg/m <sup>2</sup> ·h ) | W < 0.1 Class III         |
| Permeability to water vapour – equivalent air thickness S - (m)                               | S < 5 Class I             |
| Reaction to fire                                                                              | A1                        |

### WARNING

Danger. Contains Portland Cement: Chromium VI < 2 ppm within the validity period of the product. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. P261 Avoid breathing dust. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF IN CONTACT WITH YOUR SKIN: Wash with plenty of water/... P305 + P351 + P338 IF IN CONTACT WITH YOUR EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor/...



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