Structural reinforcing systems for RC elements, using galvanized stainless steel tissues with inorganic matrix

LV127_SA_EN_R3-0320

APPLICATION DATA SHEET

Structural reinforcing systems for RC elements, using galvanized stainless steel tissues with inorganic matrix, through:

1. **cleaning and regularizing the substrate;**
2. **priming;**
3. **preparation of the blockings;**
4. **application of first layer of matrix;**
5. **application and fixing of the tissue;**
6. **application of an incorporating and protective layer;**
7. **skimming.**

1) CLEANING AND REGULARIZING THE SUBSTRATE

Reinforced concrete structures:
If it is necessary to carry out a restoration, prepare the surface completely removing the deteriorated concrete by hand or mechanical chipping or by other suitable means, such as hydro-scarifying, in order to obtain a solid substrate, free of loose parts and sufficiently rough. Remove the rust from the exposed bars bringing the surface back to “white metal” conditions. Clean the substrate from dust, grease, oils and other contaminants. Wet the substrate until it is saturated, but dry on the surface (s.s.d. conditions), and restore the surface with suitable mortar from the Betonfix Monolite N line. Wait for the restored part to completely dry before applying the primer.

If the restoration of the reinforced concrete is not necessary, proceed with the shoring of the structures subject of the intervention. Round off any edges (minimum radius of 2 cm). Plate surfaces with a tensile strength greater than 1.5 Mpa.
Clean the substrate in order to eliminate flimsy parts and any material that could compromise the good anchoring of the following procedures.
Carefully grout any cracks or micro-cracks with suitable mortars (consult our Technical Department).

2) PRIMING

On substrates that require pre-consolidation, apply on the treated surface two-component synthetic resin primer in water dispersion **Kimicover FIX** with a minimum consumption of 0.2 Kg / m^2.

3) PREPARATION OF THE BLOCKINGS

Drill the hole with a minimum diameter of 16mm, clean it with air and insert a connector made out of galvanized steel fabric **Kimisteel GLV 650** rolled in order to act as a reinforcement bar, then proceed anchoring the connector with adequate mortar.

4) APPLICATION OF FIRST LAYER OF MATRIX

Spatula spreading of:

- **Betonfix MONOLITE N** mortar for masonry substrates with a consumption of 17 Kg/m²/cm. Respect the thickness of 5mm for each coat. (The total thickness of the intervention must be 10 mm).

5) APPLICATION OF THE TISSUE

While the product is still fresh, spread the unidirectional tissue consisting of steel filaments **Kimisteel GLV 650**, with a metal spatula and / or trowel, applying slight pressure on it. This operation will be used to completely soak the fabric inside the matrix.

Cut the reinforcing tissue to the required size (with simple tongs or whisk) in order to crrete connectors. The anchoring will be perfomred using anti-shrinkage cement-based mortar **Betonfix 200 TH**.

6) APPLICATION OF AN INCORPORATING LAYER

Fresh on fresh, apply on the fabric a further coat of the same matrix previously used as a bonding layer for the reinforcement tissue, with a metal spatula and / or trowel.

7) SKIMMING

Skimming should be carried out upon completion of the plaster curing (wait at least 1 week for each centimeter of thickness, and at least at least 3 weeks) by applying a ready-to-use cement-based mortar **Betonfix RS**.

POSSIBLE ALTERNATIVES
*As an alternative to **Betonfix RS** it is possible to perform the skimming by the application of ready-to-use one-component water-repellent protective skimming mortar with aggregates with a maximum grain size of 0.5 mm, white or grey, **Betonfix R30** or with ready-to-use one-component hydrophobic protective skimming mortar with aggregates of maximum grain size of 0.7 mm, white, **Betonfix R52**.*