

Restoration with pourable mortar through formworks

LV95_SA_EN_R2-1017

APPLICATION DATA SHEET

Restoration with pourable mortar through formworks prior:

1. Removal of the damaged concrete;
2. protective treatment of the existing metal reinforcement;
3. placement of new reinforcement bars and creation of the formwork;
4. pouring of the castings;
5. skimming;
6. final protective coat.

1) REMOVAL OF THE DAMAGED CONCRETE

The surfaces to be restored must be prepared by completely removing the damaged 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.

The concrete in contact with the visible metal reinforcements must be removed from each side of bars using a needle gun; the areas to be skimmed will be preliminarily sanded and / or water sandblasted to eliminate any residue of old paint, dirt, releasing agents, mosses and / or lichens, dust, friable materials in general that would prevent the perfect adherence of the mortar to the substrate.

2) TREATMENT OF THE EXISTING METAL REINFORCEMENT

Perform the sandblasting of exposed reinforcing bars to remove the rust and bring the surface to "white-metal" condition.

In the case of significant oxidation of the existing bars with a strong reduction of the section, it is possible to place new reinforcement steel bars or collaborative electro-welded mesh.

Carry out the protective treatment of exposed reinforcement bars by applying on them passivating mortar **Betonfix KIMIFER** with a CE mark in conformity with UNI EN 1504-7, applied with a brush, according to the consumption rates in the Technical Data Sheet.

3) PLACEMENT OF NEW REINFORCEMENT BARS AND CREATION OF THE FORMWORK

Possible placement of new metal reinforcement bars fixed to the existing structure by anchoring bars and/or welding to the pre-existent reinforcement.

4) POURING OF THE CASTINGS

Collaborative and / or restoration pouring with castable non-shrink ready-to-use hydraulic mortar **Betonfix CR** with CE mark according to UNI EN 1504-3 Class R4. The mortar can be cast in normal formwork and / or rampant formwork.

As an alternative to the pre-mixed mortar **Betonfix CR**, you can use binder **Betonfix 200** to be mixed on site with aggregates in a granulometric curve, to make high-strength concrete.

5) SKIMMING

Possible protective skimming by applying a double coat of single-component mortar **Betonfix RS** with CE mark in conformity with UNI EN 1504-3 Class R2, for an average total thickness of 3 mm finished with trowel or sponge.

The substrate will be cleaned in order to eliminate traces of release agent and roes of cement on the surface.

Alternatively, single-component mortar **Betonfix RS** can be replaced with two-component elastic protective cement-based mortar **Kimicover DUO** with the CE mark according to UNI EN 1504-2.

In order to increase the durability of the skimming, fiberglass mesh **Kimitech 350** can be placed between the two layers of skim coat.

6) FINAL PROTECTIVE COAT

Once the substrate is cured, carry out the anti-carbonation protective coating of the reinforced concrete structure through the use of single-component acrylic resin **Kimicover BLINDO** with CE mark according to UNI EN 1504-2. The resin will be diluted with 10-15% of drinking water and will be applied in a double layer by brush, roller or spray respecting the consumption rates indicated in the Technical Data Sheet.