Restoration and consolidation of sloped slabs through the application of thixotropic cement mortar with high performance and ductility

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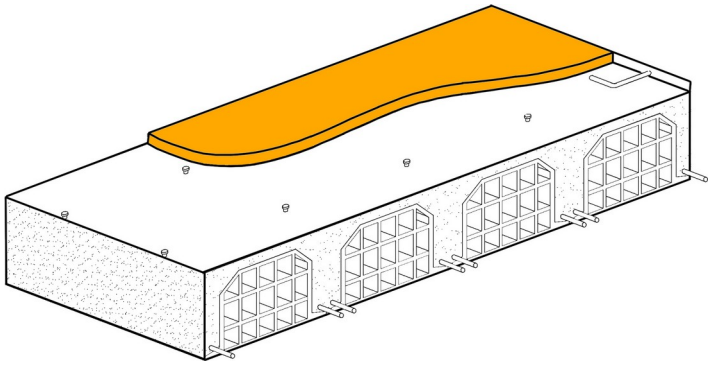

APPLICATION DATA SHEET

Restoration and consolidation of sloped slabs through the application of thixotropic cement mortar with high performance and ductility, prior:

1. **Preparation of the surface;**
2. **treatment of existing metal reinforcement;**
3. **protective treatment of the reinforcement bars;**
4. **insertion of rods and connectors;**
5. **pouring of the casting;**
6. **application of anti-evaporator.**

1) PREPARATION OF THE SURFACE

Removal of the present flooring and careful removal of the degraded and flimsy concrete by mechanical scarification to guarantee a rough surface, and free of incoherent parts. The surface roughness must be at least 5 mm to ensure adherence between the existing casting and the reinforcement cement mortar.
Make sure the surface is clean and free from dust, grease, oil and release agents in general.

2) TREATMENT OF THE EXISTING METAL REINFORCEMENT

Perform the brushing of exposed reinforcing bars or proceed with hydro-sandblasting in order to remove the rust and bring the surface to “white-metal” condition (hydro-sandblasting is not necessary if the preparation of the surface has been carried out by hydro-scarification, but it is necessary when a long period of time elapses from this operation due to particular organizational requirements of the site, before the treatment of the reinforcing bars).

3) PROTECTIVE TREATMENT OF THE REINFORCEMENT BARS

Carry out the protective treatment of exposed reinforcement bars by applying single-component anti-corrosive alkali hydraulic 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, on the metal reinforcement to be protected.

4) INSERTION OF RODS AND CONNECTORS

Decide if there is the for inserting rods to ensure a collaborative connection of the system with the existing floor and metal connectors to guarantee the connection to the perimeter structures.
The rods, if necessary, must be fixed, beforehand to the casting, to the load-bearing elements of the floor (joists, etc.).
The perimeter metal connectors must be grouted with suitable resins of the **Kimitech** line or cementitious mortars of the **Betonfix** line.
Prepare tracks (in wood or metal), as high as the thickness that has been provided for reinforcement, to help the operator during the material spreading.
Insert connection abutments by means of metal bars, anchored to the perimeter beam or perimeter wall, grouted with special epoxy resins, such as **Kimitech EP-IN**, or cementitious mortars, such as **Betonfix 200**.

5) POURING OF THE CASTING

Wet the area to be treated to saturation and eliminate, at the time of casting, any stagnation of water (s.s.d condition) by hydro-washing.
The mixing of **Betonfix HCR EVO/TX** can be carried out in a simple cement mixer or preferably with a mechanical mixing unit. Insert half of part A (powder) and start mixing adding half the amount of water shown in the table. Mix until a homogeneous and fluid mixture is obtained, then insert the remaining part of the powder gradually adding the remaining part of water until the desired mixing ratio is obtained. Keep on mixing for at least another 5 minutes.
Weigh the quantity of fibers required in relation to the volume of the pouring to be made and add them gradually (over a period of about 3 minutes), using special fiber unraveling equipment. Insert all the fibers, mix for at least another 2-3 minutes.
Carry out the **Betonfix HCR EVO** pouring.
A thickness of about 2-3 cm will be achieved and spread out using a leveling bar.

It is advisable to pass on the fresh product with a bubble breaker, of suitable thickness, to eliminate any air pockets.

5) APPLICATION OF ANTI-EVAPORATOR

Apply anti-evaporator **ANTIEVAPORANTE W** on the fresh concrete mortar, using a roller or spray. This protects the concrete by preventing the evaporation of the mixing water in the first phases of curing of the product.