

SAFETY AND CONSOLIDATING WORKS FOR COLLAPSING CONCRETE/MASONRY SLABS

Non-structural devices

APPLICATION DATA SHEET

Safety and consolidating works for collapsing concrete/masonry slabs:

1. preparation of the surface;
2. application of the anti-shatter mesh and dowel;

1) PREPARATION OF THE SURFACE:

If it is necessary to carry out a restoration, prepare the surface by 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 treat the irons with passivating mortar Betonfix KIMIFER applied by brush. Repair the surface with a suitable mortar from the Betonfix range.

In the case of steel beams, clean the substrate from dust, grease, oil and other contaminants, remove any rust, and if necessary treat with Soluzione RUGGINE.

Wet the area to be treated until saturated and eliminate any stagnant water

2A) APPLICATION OF THE ANTI-SHATTER MESH AND DOWEL

Apply a first uniform layer of two-component fiber-reinforced cement mortar Betonfix AQM GG, respecting the consumption prescribed in the Technical Data Sheet. On the still-fresh mortar layer, place bi-directional fiberglass reinforcement mesh with anti-alkaline primer Kimitech 550+, fixing it to the load-bearing joists of the slab using Kimitech ASF: fixing consisting of a ϕ 50 mm disk and a four-sector PA6-nylon dowel and a galvanized steel screw with countersunk head and cross cut.

The application of the tile is as follows:

- Construction of an 8 mm diameter hole to a depth of 40 mm after positioning the Kimitech mesh;
- Insertion of the dowel by mechanical pressure;
- Positioning of the washer over the mesh;
- Inserting the screw inside the appropriate washer hole and screwing.

To fix the mesh laterally on the vertical walls, an angular element in galvanized or stainless steel can be used, after being drilled for the passage of the connection screws. Cover of the mesh with a layer of two-component elastic cement-based mortar Betonfix AQM GG.

2B) APPLICATION OF THE DRY SYSTEM

In cases where the use of an inorganic matrix is not prescribed or the subsequent construction of a false ceiling is planned, it is possible to intervene with the application of the dry system by positioning the Kimitech 550+ bidirectional fiberglass mesh, fixing it to the load-bearing beams of the floor using Kimitech ASF: fixing consisting of a 50 mm f disk, a four-sector PA6 nylon plug and a galvanized steel screw with a countersunk head and cross cut.

The application of the tile is as follows:

- Construction of an 8 mm diameter hole to a depth of 40 mm after positioning the Kimitech mesh;
- Insertion of the dowel by mechanical pressure;
- Positioning of the washer over the mesh;
- Inserting the screw inside the appropriate washer hole and screwing.

POSSIBLE ALTERNATIVES:

- As an alternative to the Kimitech 550+ net, it is possible to use: Kimitech BS ST, basalt fiber nets of different weights or Kimitech WALLMESH, glass fiber nets of different weights and characteristics
- As an alternative to Betonfix AQM GG mortar, it is



possible to use: Basic MALTA R3, cement mortar in class R3 or Basic MALTA M15/F, mortar based on natural hydraulic lime and ecopozzolan