

# Structural reinforcement of brick, stone and tuff masonry, with FRCM systems consisting of a 400 g/m<sup>2</sup> basalt fiber mesh and natural hydraulic lime mortar

## LV125\_SA\_EN\_R3-0320



## **APPLICATION DATA SHEET**

Structural reinforcement of brick, stone and tuff masonry, with FRCM systems consisting of a 400 g/m<sup>2</sup> basalt fiber mesh and natural hydraulic lime mortar, through:

- 1. preparation of the substrate;
- 2. application of the reinforcement;
- 3. Drilling holes for connections
- 4. Application of last coat of matrix
- 5. Skimming coat.

#### 1) PREPARATION OF THE SUBSTRATE

Demolition of existing plaster and loose parts and scarification of bed joints. Washing and wetting of the soaked surface (minimum masonry humidity equal to 70%). Possible reconstruction of missing or particularly damaged masonry parts. If restoration of the support is needed, such intervention will be performed using mortars from Basic, Tectoria or Limepor range. The thickness necessary to restore the support is not included in the total thickness of FRCM reinforcing system.

## 2) APPLICATION OF THE REINFORCEMENT

Apply a first rough coat (5 mm) of lime-based mortar **Basic MALTA M15/F** to the masonry. While the mortar is still fresh, apply de reinforcing baslt-based mesh **Kimitech BS**  **ST 400** (for cutting the mesh at the openings use shears and/or construction cutters or angle grinder). Overlap the mesh bands for about 15 - 20 cm in order to guarantee mechanical continuity.

#### 3) DRILLING HOLES FOR CONNECTIONS

Depending on support to be reinforced, the FRCm system will be applied on just one side or both sides, using adequate transversal conections. In order to create such connections, galvnized steel fabric **Kimisteel GLV 650** or stainless steel fabric **Kimisteel INOX 800** will be used. Once the first layer of mortar is cured enough, drill the hole (minimum diameter 16mm) and clean properly the hole with air. Insert the connector and anchor the elemnt itself using the lime-based slurry **Limepor 100 GEL**.

#### 4) APPLICATION OF LAST COAT OF MATRIX

Covering with a second layer of lime based mortar **Basic MALTA M15/F**, respecting the maximum overall thickness of the reinforcement of 1 cm.

## 3) 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 natural hydraulic lime-based white skimming mortar **Limepor EDO**.