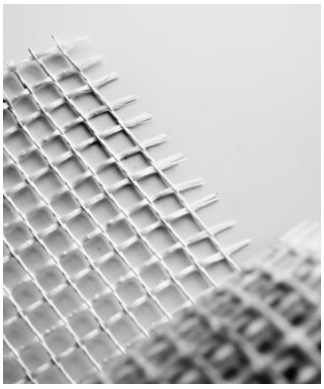
Kimitech 550+

Glass-fibres reinforcing mesh with alkaline-resistant treatment



Scheda Tecnica rev.01_05/2025

DESCRIPTION

Kimitech 550+ is a glass-fibres reinforcing mesh with AR treatment, used for interventions with Basic or Betonfix mortars.
The system fulfils requirements from "Guide lines RELUIS for consolidation and restoration of structural elements, infill walls and partitions".

USES

The product is used in combination with Betonfix mortars, especially with Betonfix AQM GG and Betonfix MONOLITE N and with natural hydraulic lime based mortar Basic MALTA M15/F, to safety works concerning slabs and to avoid mechanisms involving infill walls and partitions. Often used also in restoration of localized damages, as cracks.

WORKS

- Reinforcement for the concretion of infills and partitions to the reinforced concrete structure (SA59);
- Safety and consolidating works for collapsing concrete/masonry slabs (SA103);
- Restoring localized damages using glass-fibres meshes (SA128).

CERTIFICATION

The product is CE marked according to EAD 040016-00-0404: "Glass fibre mesh for reinforcement of cement based renderings".

CE

APPLICATION

For every different application, please see the tds or technical spcifications correlated to the product.

PACKAGING

Rolls: Width 100 cm, length 50 m.

CHARACTERISTICS	TIPICAL VALUE
Fibre type	Glass e
Total weigth of the mesh	219 g/m²
Colour	White
Mesh sizes	8 x 8 mm
Avarage thickness of the pre-treated tissu	0,82 mm
Equivalent dry tissue thickness	0,041 mm
Resistant area per unit of width	40,86 mm2/m
Tensile resistance (warp)	42 n/mm
Tensile resistance (weft)	52 n/mm
Elongation at failure	3,50%

WARNING

Product intended for professional use.
The product is an item according to the definitions of Regulation (EC) n. 1907/2006 and therefore does not require a Safety Data Sheet.
The information and requirements indicated in this Technical Data Sheet are based on our current knowledge and experience and are to be considered, in any case, purely indicative. They cannot guarantee the final result of the applied product and they have to be confirmed by exhaustive practical applications; therefore the user must test the suitability of the product for the intended application and its purpose. Users must always refer to the latest version of the local technical data sheet related to the product.

TECHNICAL SPECIFICATIONS

SK59 – Reinforcement for the concretion of infills and partitions to the reinforced concrete structure
SK103 – Safety and consolidating works for collapsing concrete/masonry slabs
SK128 – Restoring localized damages using glass-fibres meshes

(SK59) Remove any detached parts. Remove the plasters covering both the RC structure and the infill wall or partition involved in the reinforcing system., respecting a minimum width of 50 cm. Remove any dust and clean with clear water applied at low pressure. Proceed drilling

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the infill wall or the partition for the entire thickness and positioning the holes along the perimeter of the RC structures with a maximum distance center-to-center not bigger than 50 cm. Cover the holes with adequate devices in order to avoid the mortar to get in and make easier the localisation of the holes after the application of the mortar coat.
On the surface, with SSD conditions, apply by trowel or with plastering machine a first coat of bi-component, fibre-reinforced, cementicious mortar Betonfix AQM GG by Kimia S.p.A. or a similar product, respecting a consumption of 1,8 kg/m²/mm. Wgile the mortar is still fresh, lay the glass-fibres reinforcing meshes with alkaline-resistant treatment Kimitech 550+ by Kimia S.p.A. or a similar product, slightly pressing down the mesh into the mortar layer. Apply the second layer of mortar Betonfix AQM GG by Kimia S.p.A. or a similar product to cover completely the glass-fibres mesh. In case connection systems are included in the reinforcing system, keep, during the application of the second layer of mortar, exposed a surface of the glass-fibres mesh with dimension 20x20 cm in correspondence of the hole drilled previously. Prepare the connection systems Kimisteel FIOCCO GLV by Kimia S.p.A or a similar product. Cut at the required length the galvanized steel fabric Kimisteel GLV 650 by Kimia S.p.A. or a similar product, respecting a minimum length of 40 cm, fill the holes with adequate anchoring mortar like Betonfix 200 by Kimia S.p.A. or a similar product. Insert the rolled up part of the galvanized steel fabric and seal it.

(SK103) Remove old plasters and existing false-ceilings. Remove any detached portion of degraded concrete and clean properly the reinforcement bars. Install new reinforcement bars if necessary using adequate chemicals to anchor them. Wet the surface until SSD conditions are achieved. Treat the rebars against corrosion with the mortar Betonfix KIMIFER by Kimia S.p.A. or a similar product. The product will be applied in two coats respecting a total consumption of 0,5 kg/m². The first coat will be applied to protect the reinforcement rebars and the second will be applied also on the existing concrete surface to create a good adhesion bridge with the new material.
Use an adequate mortar to restore the RC elements, like Betonfix FB by Kimia S.p.A. or a similar product. Lay, while the mortar is still fresh, the glass-fibres mesh, with, alkaline-resistant treatment, Kimitech 550+ by Kimia S.p.A. or a similar product, anchoring the mesh to the RC joists using specific devices like Kimitech ASF by Kimia S.p.A. or a similar product. In order to anchor the mesh on the vertical perimetral walls, use a "L" shaped stainless or galvanized steel profile. Cover the entire surface, where the mesh has been applied, with a coat of mortar Betonfix AQM GG by Kimia S.p.A or a similar product.
The glass-fibres mesh with alkaline-resistant treatment, will be applied following strictly the information indicated in the TDS of the product issued by the manufacturer and it will have the following characteristics:

- Elongation at failure: 3,5%;
- Tensile resistance (warp): 52 N/mm
- Tensile resistance (weft): 42 N/mm
- Average tickness of the pre-treated tissu: 0,82 mm;
- Total wigth of the fabric: 219 g/m²

(SK128) Remove the existing plaster on both sides of the crakes respecting a total width of 60 to 90 cm and if necessary consolidate the substrate with injections. Clean and wet the surface until SSD conditions are achieved. Apply by trowel or by plastering machine a first coat of a fibre-reinforced cementicious mortar like Betonfix AQM GG by Kimia S.p.A. or a similar product. While the mortar is still fresh, lay the glass-fibres, reinforcing mesh, with alkaline-treatment, Kimitech 550+ by Kimia S.p.A. or a similar product, guaranteeing an overlap of 15-20 cm between different sheets of product.
In order to improve the adhesion between the mortar and the mesh , press down slightly the mesh into the fresh layer of matrix. While the first coat of mortar is still fresh, apply one more layer of mortar Betonfix AQM GG by Kimia S.p.A. or a similar product, covering all the areas where the mesh has been applied. Wait for the adequate curing time and proceed with the skimming coat.

The reinforcing mesh is CE marked according to the EAD 040016-00-0404: "Glass fibre mesh for reinforcement of cement based renderings" and the system fulfils requirements from "Guide lines RELUIS for consolidation and restoration of structural elements, infill walls and partitions".