

Description

Kimisteel INOX is a family of unidirectional reinforcement fabrics made with strands of stainless steel and related accessories, particularly resistant to corrosion, for using in case of interventions on substrates subject to rising damp and, in general, which are exposed to aggressive environments.

The fabric can be used with organic or inorganic matrices to accomplish structural consolidation of elements in masonry, armed cement and armed concrete prestressed.

Uses

- Reinforcement for masonry structures
- Creating reinforced edge beams
- Vault consolidation
- Structural reinforcement for beams and joists
- Pillar and column confinement
- Creating prefabricated concrete elements with light reinforcement
- Creating reinforced clay bricks

Advantages

When the product is used on masonry structure or on vaults:

- Huge workability and ductility
- Can be pre-stretched for edge beam insertion or covering operations
- High water vapour permeability
- Excellent resistance to fire
- Easy and quick to lay
- Easily reversible

When the product is used to reinforce concrete structures:

- High mechanical resistance with limited thicknesses and weights
- Can be used with a number of matrix materials according to the mechanical resistance, the type of environment in which it is to be used and the vapour permeability required from the system
- When treated appropriately, the product can be finished with levelling products, plaster/render coats, paints or protections for exposure to high temperatures (contact our Technical Support Service for the latter).

Application

For the realization of the various types of intervention consult the specifications of reference and technical specifications of the materials to be used.

Prepare the surfaces to be reinforced by cleaning thoroughly from any factor which may affect the adhesion the reinforcement system and prepare any mechanical anchoring systems or drill for the grouting of the ends of the fabric.

On substrates primed, apply one of the following matrices:

- Mortar Kimisteel LM mixed with Kimitech B2 to 30% by weight (in case it is wanted to ensure maximum breathability and resistance to high temperatures).
- Mortar Kimisteel LM mixed with bicomponent resin Kimicover FIX to 40% (in case it is wanted to ensure high

mechanical and adhesive performances to the reinforcement system).

- Epoxy resin without solvent Kimitech EP-TX (for maximum mechanical and durability performances).

Applied the matrix, in fresh, proceed to the possible insertion of one end of the fabric in the drilled hole or in the mechanical fastening systems previously prepared, lay the fabric, pre-tensioning (if provided) and secure the other end of the strip and, with metal spatula and / or trowel, completely drowning the fabric within the matrix.

In fresh, apply a further coat of matrix making sure the fabric will not remain in any area uncovered.

The finishing with traditional plaster or thermal plaster with protection from fire (for sizing contact with the technical department) must be preceded (in the case of epoxy matrices or epoxy-cementitious) from the application in fresh to the last layer of matrix of a sprinkling of quartz (Kimifill) with a suitable grain size.

Characteristics	Value
Colour	Bright Steel
Resistance wires	1470 MPa
Modulus of elasticity wires	73,5 GPa
Elongation at break wires	2,00%

Characteristics	Kimisteel INOX 2200
Threads' diameter that make up each single wire	0,11 mm
Number of threads for each wire	49
Wire diameter	1 mm
Minimum breaking load of wires	700 N
Strip width	100 mm
Number of threads/100 mm	51
Grammage	2200 g/m ²
Nominal thickness of the strip	0,24 mm
Unitary resistance of the strip	380 N/mm

Packaging

Different supplies are possible on specific request of the customer.

Warning

Product intended for professional use.

Never allow the product to come into contact with water or store it in particularly damp conditions before use.

When applying in particularly aggressive areas, consult the Technical Support Service for the best choice of matrix and finish.

The product must be applied so that it is totally submerged in the matrix and there are no areas in which the fabric remains uncovered.

The technical specifications and application methods recommended here are based on our current knowledge and experience and do not represent any form of guarantee of the final results obtainable with the product.

It is the customer's responsibility to check that this data sheet is still effective and it has not been replaced by a more updated version, and that the product is suitable for the intended use (use the QR-code to download the latest version of this document).

