

Kimitech CBA

High-modulus carbon fiber reinforcement fabrics for CFRP reinforcing systems.
Available in different weight and weaving.



Scheda Tecnica rev.01_05/2025

DESCRIPTION

Kimitech CBA is a family of high modulus carbon fiber reinforcement fabrics specific for structural consolidation.

The product, suitably treated, can be finished with skim coatings, plasters, varnishes or with fire protection (in this case, contact our Technical Department).

ADVANTAGES

- High mechanical resistance even at low weight and thickness. Excellent resistance to stray currents, solvents, acids.
- May orient and size the reinforcement depending on the structure needs. Reversible.
- Fast and easy to lay, even for quick works.

USES

Kimitech CBA fabrics are used for structural consolidations of r.c., steel, wood and masonry elements. They are particularly suitable for plating inflected elements, reinforce cut beams and partitions, confine pillars and, in general, to reinforce buildings.

WORKS

- Structural reinforcement by bonding and impregnation of high modulus carbon fiber fabrics (SA61)
- structural reinforcement by bonding and impregnation of high modulus and high strength carbon fiber fabrics (SA61)

CERTIFICATION

Kimitech CBA fabrics are part of the Kimitech CBA system which gained the Italian CVT n° 405.



APPLICATION

Please refer to the specifications and technical data sheets of the materials to be used depending on the kind of work to be performed.

In the case of reinforced concrete structures, make the cladding on elements having a compressive strength higher than 15 MPa (par 4.8.1.1 CNR DT 200 R1 / 2013); in case of masonry surfaces, follow the instructions given in par. 5.8.1.1 of the CNR DT 200 R1 / 2013.

To optimize the computational strength and overall reliability of the reinforcements we recommend using Kimitech FRP-LOCK mechanical anchorage system, patented and tested in the spirit of the indications provided by the DT 200 at parr. 4.8.1 and 5.3.5.

Once the surface to be treated has been prepared, spread Kimitech EP-TX epoxy adhesive after applying a suitable primer (contact our Technical Dpt).

Roll out the fabric and, using a special metal roller, exert a slight pressure on it; this favour a good adhesion of the fabric and will avoid dangerous formations of air bubbles. Apply Kimitech EP-IN or Kimitech CMP epoxy impregnant by brush.

STORAGE

Store in a dry place, no direct sunlight.

Article	g/mq	Density [g/cm ³]	Weaving* *	Thickness tf *** [mm]	Resistant area per unit of width [mm ² /m]	Impregnation resin consumption [Kg/mq]	Width bf [mm]
Kimitech* CBA 320	300	1,82	U	0,170	170	1	100; 200; 500.
Kimitech* CBA 420	400	1,82	U	0,220	220	1,3	100; 200; 500*.
Kimitech* CBA 620	600	1,8	U	0,350	350	2	100; 200; 500.

* Min. Order 300 lm

** u: unidirectional, b:bi-directional, q:quadri-directional

*** referring to each weaving direction

Kimitech CBA	Resistance class	Characteristic tensile strength [N/mm ²] (average value)	Maximum load per unit of width [KN/m] (average value)	Elastic modulus [Gpa] (average value)	Elongation [%] (average value)
Kimitech CBA 320	350/280 OC	> 4500	> 700	390±4%	> 1,1
Kimitech CBA 420	350/175 OC	> 4500	> 900	390±4%	> 1,1
Kimitech CBA 620	350/175 OC	> 4500	> 1500	390±4%	> 1,1

WARNING

Product 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.

Given the intrinsic fragility of the base yarn, it is recommended to handle and apply the fabrics with the utmost care.

The Obligations of marking are not related to the intrinsic nature of a given product, but to the use to which a specific material is used: before making the order, the buyer shall submit all the documentation available to the D.L. in order to determine the materials suitability (in terms of certifications and performance) in relation to the use for which they are intended.

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 SPECIFICATION

SK61 - Structural reinforcement by bonding and impregnation of high modulus carbon fiber fabrics

If necessary, shoring the structures to be reinforced.

Clean the surface to be treated removing detached parts and any material could affect the good adhesion between support and reinforcing system. The composite material must to be applied on rounded angles (minimum radius 2 cm). Repair any cracks with adequate material (mortar or resin). In case of irregular surfaces, proceed smoothing it with adequate hydraulic mortars.

As a primer, Kimicover FIX by Kimia S.p.A. or a similar product will be used respecting the following minimum

consumptions:

- 0,2 Kg/m² (concrete or wood)
- 0,3 Kg/m² (masonry)
- 0,5 Kg/m² (gypsum or "cannucciato" structures)

As a bi-component epoxy adhesive, Kimitech EP-TX by Kimia S.p.A. or a similar product will be used respecting the following consumptions

- 3,5 Kg/m² on irregular support;
- 3 Kg/m² on wooden support;
- 2-2,5 Kg/m² on support treated with Tectoria or Betonfix mortars;
- 1,6-2 Kg/m² on a smooth RC support or a steel surface.

As reinforcing carbon-tissue fabric, Kimitech CBA 420 or Kimitech CBA 620 by Kimia S.p.A. or similar products will be used, using as impregnation resin the fluid bi-component Kimitech EP-IN or Kimitech CMP by Kimia S.p.A. or a similar product.

As anchoring systems, if necessary, Kimitech FRP-LOCK or Kimitech FIOCCO by Kimia S.p.A. or similar products will be used.

SK61 - Structural reinforcement by bonding and impregnation of high modulus and high strength carbon fiber fabrics

If necessary, shoring the structures to be reinforced.

Clean the surface to be treated removing detached parts and any material could affect the good adhesion between support and reinforcing system. The composite material must to be applied on rounded angles (minimum radius 2 cm). Repair any cracks with adequate material (mortar or resin). In case of irregular surfaces, proceed smoothing it with adequate hydraulic mortars.

As a primer, Kimicover FIX by Kimia S.p.A. or a similar product will be used respecting the following minimum consumptions:

- 0,2 Kg/m² (concrete or wood)
- 0,3 Kg/m² (masonry)
- 0,5 Kg/m² (gypsum or "cannucciato" structures)

As a bi-component epoxy adhesive, Kimitech EP-TX by Kimia S.p.A. or a similar product will be used respecting the following consumptions

- 3,5 Kg/m² on irregular support;
- 3 Kg/m² on wooden support;
- 2-2,5 Kg/m² on support treated with Tectoria or Betonfix mortars;
- 1,6-2 Kg/m² on a smooth RC support or a steel surface.

As reinforcing carbon-tissue fabric, Kimitech CBA 320 by

Kimia S.p.A. or a similar product will be used, using as impregnation resin the fluid bi-component Kimitech EP-IN or Kimitech CMP by Kimia S.p.A. or a similar product.

As anchoring systems, if necessary, Kimitech FRP-LOCK or Kimitech FIOCCO by Kimia S.p.A. or similar products will be used.