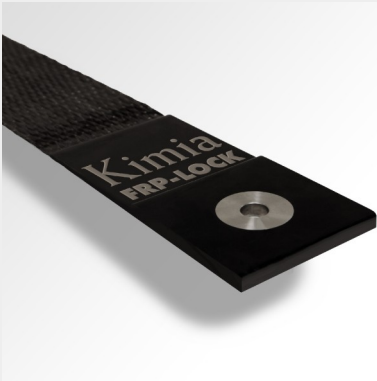


## Kimitech FRP-LOCK

ST3-0221

*Engineered anti-delamination mechanical anchoring for  
FRP consolidating systems*

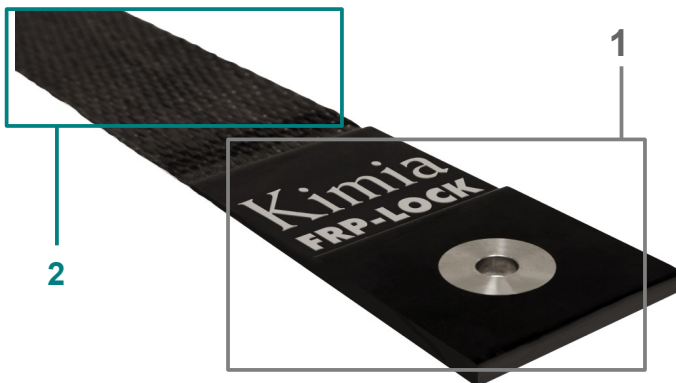


### DESCRIPTION

**Kimitech FRP-LOCK** is a patented and tested anti-delamination device.

**Kimitech FRP-LOCK** consta di:

- (1) a stainless steel metal eyelet embedded in a multi-layer system of multi-directional overlapped fabrics with specially designed angles and weights;
- (2) a portion of free fibers to be impregnated on site to restore the structural continuity of the composite;



The choice of the fixing technique is made according to the contact area that must be guaranteed for the purposes of verifying the walling of the masonry.

### ADVANTAGES

- The FRP reinforcements anchored with Kimitech FRP-LOCK are able to work well beyond the end delamination tension that would occur without anchors or with anchors made on site; excellent performance even on poor substrates.
- Facilitates and speeds up the usual anchoring operations.

### USES

- Fixing of flexural and shear reinforcement ends on concrete and masonry surfaces.
- Reinforcements on poor material structures.

### APPLICATION

The application on site of **Kimitech FRP-LOCK** anti-delamination locking device should be made following these operational steps:

- Positioning of the FIXING KIT or grouting of 16 mm diameter bars.

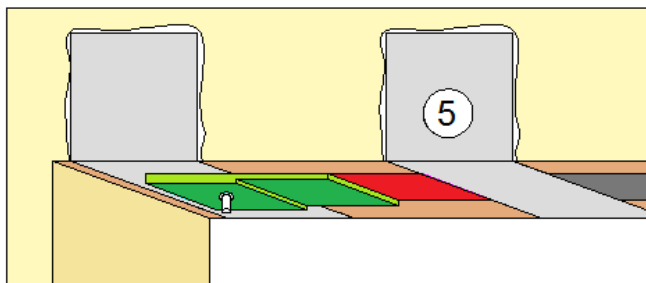
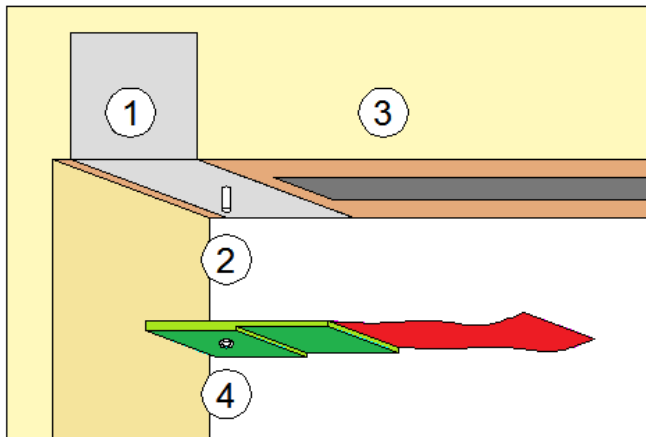
Please note: Kimia can evaluate, for specific supplies, the possibility of supplying preformed laminates of suitable length, thickness and width, already equipped with **Kimitech FRP-LOCK** system.

**Kimitech FRP-LOCK** is mechanically anchored to the substrate:

- by grouting of a 16 mm stainless steel bar
- with a appropriate FIXING KIT consisting of a metal cylinder (diameter 3 cm, height 15 cm) to be fixed in the support, provided with an internal thread for fixing the locking screw.

- Application of the reinforcement according to the project indications.
- Application of **Kimitech EP-TX** two-component thixotropic epoxy resin on the area covered by the tackle with **Kimitech FRP-LOCK**.
- Installation of **Kimitech FRP-LOCK** and mechanical tightening.
- Impregnation of the fabric of **Kimitech FRP LOCK** with **Kimitech EP-IN** two-component fluid epoxy resin.

## ASSEMBLY DIAGRAM IN CASE OF COMBINED FLEXURAL AND SHEAR REINFORCEMENT



1. Application of any insistent "U" reinforcements in the area on the rigid part of **Kimitech FRP-LOCK** anchor (marked in green in the drawing).
2. Drilling and grouting of the bar or fixing kit for **Kimitech FRP-LOCK**.
3. Priming, application of **Kimitech EP-TX** epoxy filler or similar, laying of the fabric for bending reinforcement and its impregnation with **Kimitech EP-IN** or similar resin.
4. Application of **Kimitech EP-TX** epoxy filler in the rigid bonding area of **Kimitech FRP-LOCK** anchoring device (marked in green in the drawing), positioning and fixing with anchor nut, impregnation of fibers of **Kimitech FRP-LOCK** (in red in the drawing).
5. Application of any additional "U" reinforcements along the beam.

Characteristics	Typical value
Eyelet diametre	16,2 mm
Pre-impregnated part dimension	Width: 100 mm Length:100 mm Thickness: 12 mm
Non pre-impregnated part dimension	Lunghezza: 500 mm
Max. strength supported by the grip	> 46 KN

## AVVERTENZE

Product intended for professional use.

The depth of grouting and the overall resistance guaranteed by it must be compared (and verified) taking into account the resistance of the substrate.

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.