



## Kimitech TONDO CB

ST4-0221

*Carbon reinforcing bars*

### DESCRIPTION

**Kimitech TONDO CB** is a structural element with a full circular section, available in several diameters, supplied in standard bars of 2 meters, composed of unidirectional carbon fibers impregnated with synthetic resins.

It is not influenced by stray and electromagnetic currents and has very high resistance to corrosion.

### USES

**Kimitech TONDO CB** carbon reinforcing bars can be used for end anchorings and anti-delamination connectors for composite systems and, in general, for nailing and micro-crimping (in combination with **Kimitech** resins, cementitious products **Betonfix** or lime based **Limepor**). **Kimitech TONDO CB** bars are used as reinforcement in reconstructions with epoxy castings loaded with wooden beams degraded to the supports.

### WORKS

- Reinforcing cracked masonry with composite material (**SA118**).
- Transversal connections on rubble-filled masonry walls using composite bars (**SA119**).

### APPLICATION

For the various types of intervention, refer to the technical specifications and the technical data sheets of the materials to be used.

### PACKAGING

2 metres bars.

Diametres: 8, 10, 12 mm

Characteristics	Typical data
Specific weight	1.6 g/cm
Fibre content	60 %
Tensile elongation at failure	1.9 %
Tensile elastic modulus	130 GPa
Tensile strength	2300 MPa
Limit operating temperature	-30 / +70 °C
Color	Black

### STORAGE

Store the product in a sheltered and dry place. In these conditions and in closed containers, its stability is unlimited.

### 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.

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

**SK118** - Reinforcing cracked masonry with composite material

**SK119** - Transversal connections on rubble-filled masonry walls using composite bars

**(118)** Drill holes across the crack with adequate direction (in order to avoid the loosening of the reinforcing bar) where the masonry looks solid and sound. The depth of the holes must be equal or bigger than the length of the bars and respecting the numerosness indicated in the project. The diameter of the holes will be bigger then 2-4 mm with respect to the bar diameter alternatively drilled upwards and downwards.

**(119)** Drill pilot holes with adequate inclination (in order to avoid the loosening of the reinforcing bar) where the masonry looks solid and sound. The depth of the holes must be equal or bigger than the length of the bars and respecting the numerosness indicated in the project. The diameter of the holes will be bigger then 2-4 mm with respect to the bar diameter alternatively drilled upwards and downwards.

Insert the carbon-fiber-based pultruded bar Kimitech TONDO CB by Kimia S.p.A. or a similar product. Anchor the bar using bi-component epoxy fluid resin Kimitech EP-IN by Kimia S.p.A. or a similar product CE marked according EN 1540-4.

Once cured, complete the intervention sealing the hole with adequate resin from Kimitech line or mortar from Betonfix, Limepor or Tectoria mortars by Kimia S.p.A. or similar product.

The proltruded bar with high resistance to corrosion based on unidirectional carbon fibres and impregnated with synthetic resins, it will be employed strictly following instructions indicated in the technical data sheet issued by the Manufacturer and respecting with the following characteristic:

Specific weight: 1.6 g / cm;  
Elastic tensile modul: 130 GPa;  
Tensile resistance: > 2300 MPa;  
failure elongation: 1,9%.