

# FIBRE SUPER



## Macro - structural synthetic fibers

### DESCRIPTION:

FIBER SUPER is a synthetic fiber deriving from a mixture of raw materials with high mechanical resistance. FIBER SUPER improves the following concrete properties:

- Ductility after cracking, toughness
- Resistance to impact, fatigue
- Resistance to shrinkage cracking, to segregation
- Resistance to freezing and thawing
- Fire resistant.

FIBER SUPER has a high adherence that comes from its ability to fibrillate (conform to hook) at the ends during mixing, it allows to reduce the production and laying costs of the welded mesh in numerous cases, it is evenly distributed in the concrete forming a net multidirectional reinforcement, without corrosion on the surface, in contrast to metal fibers. Compatible with all FACOT additives.

### TECHNICAL DATA:

Composition	polymeric materials with high density and resistance
Appearance	monofilaments
Colour	white / transparent, minimum variability on the shade are not considered a defect
Specific weight	about 1 Kg/dm <sup>3</sup>
Tension at break	about 440 Mpa in traction
Elastic module	about 4,1 GPa
Water absorption	absent
Resistance to acids	total
Tests	UNI 14889-2:2006
Length	49 ± 5 % mm
Equivalent diameter	0,77 ÷ 0,79 ± 5 % mm
Geometric shape	patented

### INSTRUCTIONS FOR USE:

The fibers, even in high quantities, are dispersed homogeneously in the concrete conglomerate, do not give rise to segregation and to workability penalties. Pour into the mixer truck or concrete mixer all the necessary components to make the dough, then pour a lot of fibers every 30 seconds or so. At the end of the loading, set the maximum rotation speed for 5 minutes in order to mix the components and the fibers in the best possible way.

Adjust the consistency to the desired values through the use of superfluidifying additives, do not add further water to the mixture.

If mixing takes place in the batching plant, the fibers must first be inserted, then the aggregates, finally the cement and mix normally.

- **Ready-mix concrete in a concrete mixer:** insert the fibers at the concrete mixing plant; FIBER SUPER can be inserted directly in the cement mixer at the beginning (with an empty cement mixer) together with a part of the water, or they can be inserted directly on the belt of the aggregates, taking care to distribute them homogeneously. If this is not possible, insert the fibers in ready-mix concrete mixer, but having the trick of turning the mixer at maximum speed for at least 5 minutes.
- **Sand and cement screeds:** the fibers can be inserted manually into the pump and then stirred for a few minutes.



- **Prefabrication plants:** directly insert the fibers into the mixer when empty, or load them into the aggregate cup.
- **Different applications:** the fibers can be loaded in silos or in special screed vehicles thanks to automatic dispensers.

#### DOSES:

In general it is recommended to load from 1 to 5 kg / m<sup>3</sup> in relation to the desired performance: in general, with the same cement mortar, the first crack resistance increases with the fiber content.

- **Industrial floors:** from 1.5 to 3.5 Kg / m<sup>3</sup> of FIBER SUPER (obviously the variables are different, in particular the thickness of the floor, the concrete used, the operating loads, etc.)
- **Substrate screeds:** from 1 to 2 Kg / m<sup>3</sup> of FIBER SUPER, depending on the loads
- **Prefabricated product:** from 1 to 3 Kg / m<sup>3</sup> of FIBER SUPER, depending on whether they are used as anti-crack or replace the secondary reinforcements
- **Spritz beton:** from 3 to 5 Kg / m<sup>3</sup> of FIBER SUPER depending on the performance to be achieved.

#### FIELDS OF APPLICATION:

FIBER SUPER replaces in many cases the welded mesh or the metallic fibers:

- Prefabrication
- Cellars, shafts, pipes
- Continuous concrete paving (industrial, garage, multi-storey, etc.)
- Projected concretes
- Self-compacting concrete (SCC)
- Embankments floors
- Extruded street products
- Spritz beton
- Pumped concrete.

#### WARNING:

The information in this sheet corresponds to the best knowledge that the company has gained on the product on the date shown. This information is provided for the sole purpose of allowing the use of the product in the most correct and safe way. We decline all responsibility, direct and indirect, for damage resulting from improper or inconsiderate use, failure to apply the law and failure to comply with the procedures and doses indicated.

#### PACKAGE:

Bags 4 kg, boxes 12 Kg, pieces for pallet 375.

#### SECURITY:

The handling of FIBERS SUPER is not dangerous.

For more information consult the safety data sheet, available on request.

Last update: 04.04.2023

