

PRODUCT Nº 1.456

## B-STRATOS 20

### HIGH PERFORMANCE FIBRES FOR INDUSTRIAL FLOORS REINFORCEMENT TO REPLACE METALLIC CRAMPS

#### DESCRIPTION

**B-STRATOS 20** are polypropylene fibres, 20 mm long and 10  $\mu$  m, with an easy dispersion and recommended in concretes for industrial and civil floors, 15 to 30 cm thick, used to reduce cracking due to shrinkage in plastic state. Fibres are treated to improve wetting and dispersion in the paste of cement and on the other side to increase capacity of contact and adhesion between fibres and concrete in hardened solid state.

#### CHARACTERISTICS

- Reduced weight and easy application.
- Higher chemical resistance than steel (acids, alkalis, salts, etc.)
- Resistant to alkalis in cement.
- No oxidation or rotting.
- Damp-proof properties.
- High tensile strength
- Excellent adherence to the concrete matrix.
- Low coefficient of elasticity
- Control of plastic shrinkage with cracking reduction
- 0,6 kg of product replace 25 kg. of metallic cramps.
- Reduction of retraction joints.

#### METHOD OF USE

Add a bag of product in 1 m<sup>3</sup> of concrete. That is equivalent to a dosage of 0,600 kg/m<sup>3</sup> To be added as any other component by tempering. Mix dry for 2 to 4 minutes, and after that with the water or already prepared mass. Add the fibres to the concrete mixer and beat during 4-6 minutes, with speed of 12 rpm, to assure a homogeneous mixing.

#### SPECIFICATIONS

Specific gravity	0.915 g/cm <sup>3</sup>
Length	20 mm
Melting point	160°C - 170 °C
Flash point	590 °C
Registration of ductility	Low
Electric conductivity	Low
Acids and salts resistance	High

Tensile strength	0.28 - 0,77 KN/mm <sup>2</sup>
Coefficient of elasticity (Young's modulus)	2,1 - 3.5 KN/mm <sup>2</sup>
Alkalis and chemicals resistance	Good

## SPECIAL RECOMMENDATIONS

- Use minimum cement dosage of 250 kg/m<sup>3</sup>
- Add **B-STRATOS 20** to the mass in dry conditions, with precast mixing during 2 to 4 minutes before adding water.
- This product doesn't replace any frame or structural mesh.

## USES

- In civil or industrial floors, replacing **25-30 kg.** of metallic cramps or two meshes.
- As reinforcement for concretes and mortars in order to reduce plastic shrinkage and to increase their mechanical properties.
- Concreting of forged and compression beds.
- Precasts (kerbstones, tubes, frameworks, gardening boxes, etc.)

## ADVANTAGES

- Three-dimensional reinforcement of concrete structure
- Strong plastic and hydraulic cracking shrinkage reduction
- Significant increase of concrete and mortar tenacity.
- Considerable increase of cracking resistance by impact.
- Increase of resistance to abrasion and fretting
- Reducing of permeability to water and water absorption
- Increases the resistance of the freeze/thaw cycles.
- Increases the durability of concrete and cement structures.
- Homogeneous distributing of fibres to the difficulty of placing the electrowelded meshes when applying concrete.
- It improves the machinability of concrete and eliminates the exudation of grout.
- It allows a smaller addiction of water to the masses since an excess could produce segregations.
- Avoids handling of meshes and crane movements with unnecessary manpower cost.

## PACKAGING

Bags of 0,600 kg.

To be stored on clean and dry surfaces, under roofing.

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