SATECMA
INDUSTRIAS QUÍMICAS

PRODUCT Nº 1.457

SAT FIBER

HIGH TENACITY FIBRILATED POLYPROPYLENE FIBERS REINFORCEMENT REDUCING CONCRETE CRACKING

DESCRIPTION

SAT FIBER are polypropylene fibrilated fibres of high tenacity, 19 mm long and 10 μm diameter, with use recommended in concretes and mortars up to 7 cm thick, as reinforcement, 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.
- Chemically inert.
- No oxidation or rotting.
- Resistant to alkalis in cement.
- Damp-proof properties.
- High tensile strength.
- Low coefficient of elasticity
- Excellent adherence to the concrete matrix.
- Control of plastic shrinkage with cracking reduction
- Replacement of the electrowelded meshes (anti-cracking)
- Reduction of retraction joints.

EMPLOYMENT

Add a bag of product in 1 m^3 of concrete. That is equivalent to a dosage of 0,750 kg/m^3 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 an homogeneous mixing.

SPECIFICATIONS

Specific gravity	0.915 g/cm^3
Length	19 mm
Melting point	160ºC - 170 ºC
Ignition point	590 ºC
Registration of ductility	Low
Electric conductivity	Low
Acids and salts resistance	High
Tensile strength	0.28 - 0,77 KN/mm^2
Coefficient of elasticity (Young's modulus)	2,1 - 3.5 KN/mm^2
Alkalis and chemicals resistance	Good

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SPECIAL RECOMMENDATIONS

- Use minimum cement dosage of 250 kg/m^3
- Aggregates to employ for concretes will be between 10 and 25 mm.
- Add **SAT-FIBER** to the mass in dry conditions, mixing during 2 to 4 minutes before adding water.
- This product doesn't replace any frame or structural mesh.

USES

- Restoration first coats and mortars.
- Forgeds concreting and compression layers.
- Cladding of tunnels and galleries.
- Different constructions: swimming-pools, tanks, floorings, etc.
- Precasts (kerbstones, tubes, tubes, frameworks, gardening boxes, etc.)
- Shotcrete.
- Lightweight concretes.

ADVANTAGES

- Three-dimensional reinforcement of concrete structure
- It reduces plastic shrinkage in concretes and mortars, being 7 times smaller than without fibres.
- Increase of the concrete or mortar tenacity.
- It increases the resistance to cracking by impact.
- Reducing of permeability to water and water absorption
- It increases the resistance of the freeze/thaw cycles.
- Increases the durability of concrete and cement structures.
- Homogeneous distributing of fibres making concrete mounting opposite to the difficulty to place the electrowelded meshes.
- It improves the machinability of concrete and eliminates the exudation of grout
- It allows a smaller addition of water to the masses as an excess could produce segregations.
- Avoids handling of meshes and crane movements with unnecessary manpower cost.

PACKAGING

Cartons containing 20 bags of 0,750 kg each.
To be stored on clean and dry surfaces, under roofing.

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