

Synthetic Fiber for Structural Reinforcement of Concrete

MULTI FIBRAS ES

PRODUCT

MULTI FIBRAS ES are monofilaments obtained through the polymerization of monomers, 100% virgin, that is, structural polypropylene transforming in a continuous filament.

The synthetic fibers **MULTI FIBRAS ES** were conceived to improve the efficiency of concrete in its durability hence to substitute for the steel fibers and welded screen, bringing more benefits and making the construction process much easier. The fibers' long size makes them more efficient than the smaller ones. Its performance meets the standard ASTM-C1116.

The **MULTI FIBRAS ES** structure efficiently combats micro and macro fissures, providing the concrete matrix a three-dimensional armor, augmenting the resistance to impact, protection to the concrete from tensile stresses, inhibiting gaps from fissures and cracks.

SEGMENTS OF USE

Used on concrete industrial floors, highway pavements, overlays, capstones, steel decks, among others.

APPLICATIONS

The amounts should be specified by designers or engineers. As a basis, from 1 kg of synthetic fiber we obtain 450,000 filaments. Its application should be done directly in the cement truck or in the concrete factory. The time of its mixture in the truck, for better homogenization, is 1 minute for every m³ of concrete, being ready for use at the worksite.

Assess the effects of the fibers when working and the concrete aspect during the pumping so that the amount can be estimated. For more accurate amounts, consult the designer or engineer.

ADVANTAGES

- Ease of transport and handling;
- In contrast to steel fibers, does not produce outcrops and does not rust;
- Resistant to alkaline in the concrete;
- Does not conduct electricity;
- Does not suffer corrosion;
- Augments resistance to fatigue, traction, flexion and compression;
- Excellent anchorage in concrete;
- Is compatible with all types of Portland cement;

PHYSICAL PROPERTIES

CHARACTERISTICS	RESULTS
Number of fibers per kg	450,000
Anchorage in concrete	Excellent
Density (g/cm ³)	1.12
Modulus of elasticity Gpa	5
Traction resistance per filament	91.17 Mpa
Absorption of water	0.01%
Resistance to UV rays	Excellent
Resistance to alkali	Excellent
Mixture in the concrete	Excellent

MODULUS	ES 38	ES 38
Length	38 mm	38 mm
Thickness	0.18 microns	0.18 microns

YIELD

From: 1 to 2 kg/m³

PACKAGE

Available in plastic bags of 1 kg to 4 kg.

STORAGE

Should be stored in a dry and ventilated location at a temperature below 77 F (25C).

Expiration: indefinite in unopened package.

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Our technical advice concerning the application of the product is made verbally, in writing and through demonstration depending on the interest of the customer.

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