FIBRE 408

Polypropylene Multi-Filament

GENERAL DESCRIPTION

AXEL FIBRE 408 is a kind of synthetic fibre, 100% polypropylene, special for concrete which can effectively control the cracks of concrete due to shrinkage, dry shrinkage and temperature change, greatly improve the anti crack and anti permeability performance, anti impact and wear performance, and increase the toughness of concrete so as to improve the service life.

Polypropylene fiber is mainly suitable for: 1. Anti crack, anti seepage and thermal insulation mortar for industrial and civil buildings. 2. Basement and underground engineering, sea embankment dam and other salt water projects with high requirements for crack resistance and seepage control. 3. Various precast concrete products. 4. Highway, bridge, tunnel, airport runway and other concrete. 5. The requirements for alkali resistance and chemical corrosion are higher in chemical plants. Principle of polypropylene monofilament fiber: The product can be evenly distributed in concrete after special anti-static and anti ultraviolet treatment. Its fiber trefoil section increases the specific surface area of the fiber. The surface of the fiber is rough and porous after chemical grafting and physical modification treatment, sothe binding force with cement is greatly improved. As the fiber is very thin, it can formadisorderly supporting system, effectively control the early plastic shrinkage and dry shrinkageof concrete and mortar, hinder the formation of settlement cracks, greatly improve theimpermeability, impact resistance, toughness and wear resistance, so as to achieve the purposeof prolonging the the life of buildings.

Advantages of polypropylene monofilament products: The most effective way to solve the non structural shrinkage crack of concrete is to addsecondary reinforcement in the concrete to enhance the tensile resistance of plastic concrete. The fibers commonly used in the secondary reinforcement of concrete are asbestos fiber, glass fiber, steel fiber and synthetic fiber. But among them, asbestos fiber has been bannedinternationally because of its carcinogenicity to human body. The alkali resistance of glass fiberis poor. Although the alkali resistance of glass fiber is changed, its effect can not last. There aremany problems in steel fiber, such as large quantity, high cost, complex operation, special construction technology team, and machine wear. Therefore, the modified polypropylenesynthetic fiber is the most ideal material for the secondary reinforcement of concrete. Its advantages are: good dispersion, high grip, random distribution, secondary strengthening, physical reinforcement, crack resistance and reinforcement, anti-magnetic rust, anti-corrosionand alkali resistance, non-toxic, tasteless, high safety, simple construction, economic andreliable.

RECOMMENDED USES

* Flooring for housing, walkway, apron, car park
* Wall plastering
* Topping for car park and flat roof
* Flooring imprints

CHARACTERISTICS & ADVANTAGES

* Reduced segregation
* Improved hydration
* Reduced plastic shrinkage crack

FIBRE 408

Polypropylene Multi-Filament

* Anchored reinforcing fibers
* Increase impact and abrasion resistant
* Slowed corrosion and reduced permeability
* Maximum toughness index

COVERAGE

Theoretical coverage: 0.6kg for 1 $m^3$of concrete

COLOURS

White

PACKING

0.6 kg per bag

STORAGE

Store in a dry, cool and shaded place

SURFACE PREPARATIONS

All surfaces must be free of grime, dust or other foreign materials.

METHOD OF APPLICATION

Manually add **AXEL FIBRE 408** into the mixer and mix for 2 – 6 minutes depending on the quantity of material added.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened or cured material can only be mechanically removed.

FIBRE 408

Polypropylene Multi-Filament

TECHNICAL SPECIFICATIONS

No. of components	One
Mass (Denier): Fibrillated Fibre	1gm/ 9m (1000 denier)
Multi-filament	15 denier
Chemical Composition	C-33 %, H-67%
Configuration	Fibrillated/ Multi-filament
Color	White
Specific Gravity	0.9
Length	12 mm
Melt Point	160-170 °C
Ignition Point	590°C
Thermal Conductivity	Low
Acid & Alkali Resistance	Good
Absorption	None
Modulus of Elasticity	3.5 kN/ mm^2
Tensile Strength	0.31 – 0.42 kN/ mm^2
Tensile at Break	35N per 1000 denier
Elongation at Break	15% (Average)

SHELF LIFE

12 months from the date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions.