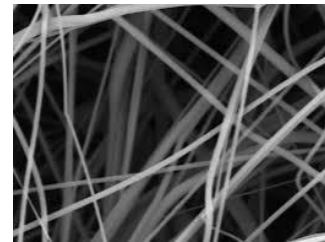


POLYPROPYLENE FIBER BROCHURE

INTRODUCTION

PP fiber is a kind of high intensity bunched monofilament fiber made of polypropylene.

Putting PP fiber into concrete or mortar could effectively prevent temperature change, micro-crack caused by plastic and dry shrinkage, etc., thereby prevent and control the happen and development of crack and improve effectively anti-crack, anti-infiltration, anti-concussion and anti-shock of concrete.



APPLICATION

It is mainly used for roads, bridges, underground waterproof projects and roofs, walls, pools, basements of the industrial civil construction.



PACKAGE

0.6/0.9/1.0kg/bag, 18kg/carton, 6.48mt/container.

PHYSICOCHEMICAL PROPERTIES

Material Form	polypropylene	Type	bunched monofilament
Color	white	Identical Diameter (μm)	35±3 / 20±2
Density (g/cm³)	0.91~0.93	Length (mm)	6, 12, 19±1
Modulus of Elasticity (MPa)	≥3500	Tensile Strength (MPa)	≥500
Elongation at Break (%)	≥15	Melting Point(°C)	160-180

◇ Remark: The length can be customized.

INSTRUCTION FOR USE

PP fiber should be directly added to the dry material and mixed for a minute prior to addition of water. The usual dosage of this product is 0.6-1.5kg/m³ of the volume of total concrete. Cleaning all the equipment and tools immediately when finish.

FUNCTION

■ **Anti-crack function**

PP fiber distributes in concrete by 3D, which reduces the stress concentration of micro-crack point, weakens or removes the tension caused by sun crack, further prevents micro-crack.

For plastic concrete, PP fiber can support the aggregate, reduce and prevent the isolation tendency of concrete, so lessens even prevent the happen of crack on surface.

■ **Anti-infiltration performance**

PP Fiber can lessen plastic crack of concrete, prevent development and run-through of crack.

The evenly distributed fiber monofilament formed a support system, prevent the surface bleeding and aggregate fall, decrease the bleeding of concrete, reduced the bleeding passage of concrete, lessened the hole rate greatly, consequently prevent infiltration of concrete obviously.

■ **Anti-freezing and thawing performance**

PP fiber can decrease effectively anti-compression stress concentration in the concrete caused by several times' circulation of freezing and thawing, which prevent the further extend of micro-crack. In addition, the increase of the anti-infiltration of concrete surely makes for improvement of freezing and thawing.

■ **Toughness and anti-shock performance**

PP fiber can help to absorb kinetic energy ,which produced when the component of concrete is shocked, moreover due to anti-crack effect of fiber, when concrete is shocked, the fiber can prevent rapid extend of inner crack, consequently increased toughness and anti-shock.

■ **Improvement of durability**

The excellent anti-crack effect of PP fiber reduce the happen and development of crack greatly.

The reduction of inner hole rate makes the infiltration and corrosion from water, chemical substance, salt of Cl as well as other outside factors slow down, i.e. because of the great reduction of crack, the channel that provided by crack which would make the function of damage and corrosion infiltrate even extend becomes less and less, which reduces the damages to structural main bar, thereby improves the durability of concrete.

■ **Improvement of fire resistance**

Adding PP fiber into concrete could improve resistance and security in fire.

High-strength concrete has high compaction. In flame, because high pressure steam formed by heating up of free and chemical water in concrete is difficult to escape, the component of concrete would blowout and collapse suddenly, and cause big harm.

However fiber concrete could avoid blowout in fire effectively. Because when temperature in component is above 165C°, fiber monofilament mesh that distributed around them will melt, simultaneously produce inner link channels for escape of high pressure steam from concrete.