Shield Fiber PP

MICSHIELD®

High-quality monofilament polypropylene fibers

Description

Shield Fiber PP is a high-performance monofilament fiber, consists of single continuous strands made from Polypropylene, used to reduce plastic shrinkage cracks, and improve the impact resistance and durability. It also reduces the water and chemicals penetration and improves the performance of concrete.

Uses

- Reduces water loss for concrete after removal of formworks.
- Can be used for all types of fresh concrete in both internal and external applications, including slabs, bridges, walls, and concrete pavements.

Characteristics / Advantages

- Lightweight and durable.
- Excellent resistance to chemicals and Alkali.
- Reduces microplastic shrinkage and cracking of concrete.
- Alternative to steel mesh.
- Promotes the tensile strength of concrete.
- Enhances freeze/ thaw resistance of concrete.
- Improves the fire resistance of concrete.

Application Instructions

1. Direction of Use

Add **Shield Fiber PP** slowly into the concrete during the mixing stage, after all other ingredients (cement, aggregates, water) are already added.

Mix for at least 3–5 minutes after fiber addition to make sure the fibers are uniformly distributed.

Shield Fiber PP is added to the mixer before, during or after dosing of other concrete materials. Mixing time is at least 5 minutes.

Dosage

Typically, dosage is around 0.6 to 1.0 kg per cubic meter of concrete. In general, fiber dosage is $0.9~{\rm kg}/m^3$. For reducing cracking in mortar or concrete, add 0.6 kg/ m^3 .

Typical Properties

Color White Tensile Strength 560 MPa Density @25℃ 0.91 g/ml Diameter of single fiber 0.02 mm Length of fiber 3, 6, 18 mm 0.8% Adhesion Content 10 seconds Distribution in water Moisture Content 1%

Packaging

Shield Fiber PP is supplied in 18 kg bags. .

Shelf Life and Storage

Shield Fiber PP has a shelf life of 36 months when stored in its original unopened packaging in dry conditions.

Shelf life may be reduced if the recommended storage conditions changed.





Limitations

- Shield Fiber PP is compatible with all commonlyused concrete additives and performanceenhancing chemicals.
- An overdose of Shield Fiber PP microfiber typically causes decreasing in performance and increasing the cohesiveness of the mixture.

Technical Support

Refer to technical information, method statement, or technical support team for any inquiry.

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