

Shield Fiber PP

High-quality Polypropylene Fibers



MICSHIELD®

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

- Can be used in all types of fresh concrete for both internal and external applications including slabs, bridges, walls, pavements, shotcrete, cementitious overlays, industrial floor slabs, patch repairs, water-retaining structures, high-performance, and precast concrete.
- Reduces water loss for concrete after removal of formworks.

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.

2. Dosage

Recommended dosage: 0.6 kg/m³.

Adjustments may be made based on mix design, raw materials, climate, or concrete performance requirements. Trial mixes should be carried out to determine the precise dosage needed.

Typical Properties

Color	White
Melting Point	160 °C
Density @25 °C	0.91 g/ml
Diameter of single fiber	0.018 mm
Length of fiber	3,6,12,18 mm

Packaging

Shield Fiber PP is supplied in 18 kg bags. (Other size packaging is available upon request)

Limitations

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

Shelf Life and Storage

Shield Fiber PP has a shelf life of 12 months when stored in its original unopened packaging in dry conditions.

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

Technical Support

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

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