



Premix POLYPROPYLENE FIBER



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PREMIX Micro-reinforcement fibers for concrete are 100 % virgin homopolymer polypropylene Monofilament fibers manufactured in an ISO 9001-2015 certified facility for use as concrete reinforcement at the recommended dosage rate of 0.9 kg per cubic meter for effective performance.

ADVANTAGES

- Non-magnetic
- Rustproof
- Requires no minimum amount of concrete cover
- Is always positioned in compliance with codes
- Safe and easy to use
- Save time and hassle.

PRIMARY APPLICATIONS

- Precast concrete elements
- Concrete overlays
- External concrete road
- Internal concrete floors
- Sprayed concrete
- Overlays & Toppings
- External & internal plaster
- Protection against explosive spalling

FEATURES & BENEFITS

- Increase cohesion and reduces segregation
- Reduces settlement and bleeding
- Reduces plastic shrinkage and settlement cracking
- Increases impact and shatter resistance
- Reinforces against abrasion
- Provides improved durability
- Reduces freeze/thaw damage
- Reduces settlements and bleeding
- Increase resistance to explosive spalling
- Inhibits and controls the formation of intrinsic cracking in concrete

COMPLIANCE

- ISO 9001-2015 Quality Assured
- Complies with ASTM C 1116 Type III 4.1.3



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CHEMICAL & PHYSICAL PROPERTIES

Fiber Length	20-24 mm
Type/Shape	Monofilament
Water Absorption	Nil
Specific Gravity	0.91 to 1.1
Electrical Conductivity	Low
Diameter	30-32 Micron
Acid & Salt Resistance	High
Melt Point	160° C (324 F)
Ignition Point	593° C (1100 F)
Thermal Conductivity	Low
Alkali Resistance	Alkali Proof
Modulus of Elasticity	2.3 - 3.9 GPA

PRODUCT USE

MIXING DESIGNS AND PROCEDURES: The addition of PREMIX micro reinforcement Monofilament fibers does not require any additional water nor other mix design changes at normal rates. PREMIX fibers can be added to the mixer before, during or after batching with the other concrete materials. After the addition of the fibers, the concrete should be mixed for sufficient time (minimum 5 minutes at full mixing speed) ensure uniform distribution of fibers throughout the concrete.

PLACING

PREMIX micro-reinforced concrete can be pumped sprayed or placed using conventional equipment. Hand or vibratory screeds and laser screeds can be used with PREMIX micro-reinforced concrete.

GUIDELINES

Fibers should not be used to replace structural, load bearing reinforcement.

DOSAGE RATE:

The recommended dosage rate for Premix Monofilament fibers, to achieve effective Performance is 0.9 kg per cubic metre, please contact your local PSI representative for recommendations regarding increased application rates.

COMPATIBILITY

Fibers are compatible with all concrete admixtures and performance enhancing chemicals.

PACKAGING

Fibers are available in standard 90 gram, 125 gram, 0.6 kg & 0.9 kg Plastic bags, which are designed to be mix directly into the concrete mixer, also available upon request in a variety of packaging options to suit application.

TECHNICAL SERVICES

PREMIX is backed by our team of reinforced concrete specialist who can carefully analyze each project and provide fiber reinforced concrete design solutions to ensure maximum project performance and cost efficiency.

REFERENCES

European Standard EN 14889-2:2006 fibers for concrete
Concrete society (UK) Technical Report TR-34
Concrete Industrial Floors Concrete Society (UK) Technical Report 22 Non-Structural cracks in Concrete ICI-TC/01 Fiber Reinforced Concrete IS 16481 : 2022