

# MIXFIBRE III

## Virgin polypropylene secondary reinforcement 3D fibre

**Mifibre III** is virgin polypropylene monofilament micro fibre specially for use in concrete and mortar mixes to provide a secondary reinforcement. The three dimensional action with high modulus of elasticity which counter act the shrinkage and cracking tendency.

Mixfibre III is having excellent dispersal in the concrete, which ever is the consistency of the concrete they can be mixed at any stage in the concrete and mortar.

The hydration of the cement as well as the mixing water requirement of concrete and mortar are not affected by the use of concrete. Mixfibre III is having excellent resistance to alkali, in addition they adhere chemically to the matrix of the cement which highly contribute to the reinforcement and durability of concrete.

The complete integrity with concrete structure as a secondary reinforcement medium which helps to improve the general characteristics like, Mechanical strength, Abrasion resistance, water proofing, shock resistance, crack free and corrosion resistance.

The reinforcement function is not a chemical process – but physical. Since the volumetric ratio is below 0.1% there is no effect on the mix design

### Appropriation

*Mixfibre III is ideal for the following applications:*

- Trafficked surfaces, bridges, roads, runways and pedestrian areas
- Industrial flooring, parking floors, refractories, tunnels
- Precast concrete, drainage & power structures
- Gunned concrete, shotcrete
- Mortars, renders, light weight concrete
- Slab pavement construction
- Tanks, silos

### Characteristics

- Restricts shrinkage and drying cracks of concrete
- Increase the resistance to shock, damage, corrosion, erosion
- 3D process dominates the plastic concrete weakness which no steel can actuate
- Increase the resistance to fatigue, repetitive load (increase toughness), permeability

### Technical Data & Properties

- Material: Virgin homopolymer polypropylene
- Shape: Monofilament
- Standard conforms to: ASTM C 1116
- Fibre distribution: 6.5million/m<sup>3</sup>
- Diameter: 18 microns nominal
- Specific gravity: 0.91
- Melting point: 162°C
- Length: 18, 12, 6mm
- Traction strength: 25kg/mm<sup>2</sup>
- Young modulus: 35x10<sup>3</sup>kg/cm<sup>2</sup>
- Tensile strength: 3,500 – 7,700kg/cm<sup>2</sup>
- Absorption: Nil
- Acid resistance: 99% strength retained
- Alkali resistance: 99% strength retained

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## Product management

Mixing: It can be mixed in dry or wet mixes. The fibre is coated with antistatic lubricants for uniform distribution, mixing can be carried out at any stage. Put the applicable amount to the batching plant or site mixer and full resolution of the mixing drum for 5 minutes is recommended. Finishing and casting same as per the normal mix

## Dosage

0.6kg / m<sup>3</sup> (administered @ 1 bag /m<sup>3</sup> or, pro data insitu mixer requirement)

## Health & safety

Mixfibre III contains no hazardous substances; however wear suitable protective gloves and goggles whilst handling. For more details, please refer to the MSDS released on each Fab product

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# FAB

THE CONSTRUCTION CHEMIST

Technical information given in this datasheet is true and exact to the best of our knowledge, laboratory upshot and hands-on application. The datasheets of all products are revised/updated regularly and hence ensure that the latest release is used for reference and recommendation. The date of the publishing is as in this sheet. All data are mean of numerous tests, assessment and analysis conducted under laboratory ambience. Climatic disparity in temperature, humidity, etc. and porosity of substrate may impinge on the values.

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