

MasterFiber[®] 018

Monofilament polypropylene fibres for cementitious systems

DESCRIPTION

MasterFiber 018 is a high performance monofilament polypropylene fibre developed as a crack controlling additive for concrete and mortar.

MasterFiber 018 is supplied agglomerated in flakes bound by a water soluble adhesive.

TYPICAL APPLICATIONS

MasterFiber 018 is used to inhibit the formation of small cracks which can occur through plastic shrinkage and settlement, premature drying and early thermal changes, in order to provide utilisation of the intrinsic properties of the hardened cementitious material.

Specifically designed for crack control in cementitious materials covering areas such as readymix concrete, precast concrete, conventional shotcrete, screeds rendering mortars, etc.

Principle uses of fibre concrete include: concrete slabs, pavements, driveways, imprinted concrete, curbs, pipes, overlays patch repair, microsilica concrete, thin section walling, water retaining structures, marine concrete, heavy industrial floors etc.

ADVANTAGES

- Can replace anti-crack wire mesh in factory and warehouse floors
- Inhibits intrinsic cracking in concrete
- Disperse uniformly throughout the mix
- Improves finishing characteristics
- Improves concrete durability
- Increases impact and abrasion resistance
- Rustproof
- Impervious to alkali attack
- Decreases construction time and labour
- Reduced risk of subsequent damage
- Improves fire resistance – reduces the
- Incidence of explosive spalling during heating

PACKAGING

MasterFiber 018 is available in bags of 0.6kg packed 30 to a box.

TYPICAL PROPERTIES*

Specific gravity	0.91 g/cm ³
Alkali content	Nil
Sulphate content	Nil
Air entrainment	Air content of concrete will not be significantly increased
Chloride content	Nil
Constituents	100% virgin polypropylene
Fibre diameter	30-32 micron
Fibre length	18mm
Elongation	20-25%
Youngs modulus	3000-3500 MPa
Tensile strength	600 to 700 MPa
Melting point	160°C

APPLICATION GUIDELINES

Standard dosage is 0.6kg/m³ but other dosages can be used subject to engineering requirements and/or specification.

Effects of overdosing

Overdosing of **MasterFiber 018** will generally produce a reduction in workability, and an increase in the cohesiveness of the mix.

MIXING

MasterFiber 018 can be used with all types of cement and is compatible with other admixtures.

Addition method

MasterFiber 018 is supplied ready for use, and in measure quantities for addition to the concrete mix whether at the batching plant or on site.

Specification

Concrete shall be manufactured using crack controlling additive such as **MasterFiber 018**, a polypropylene fibre with an individual fibre length of 18mm and thickness of 30-32 microns.

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STORAGE

Should be stored in dry conditions.

QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

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