

MASTERFIBRE

Fibrillated Polypropylene Fibre for Concrete Applications

DESCRIPTION

Masterfibre is a fibrillated polypropylene fibre designed for crack control and improved durability in concrete or shotcrete applications.

Masterfibre significantly reduces the formation of plastic shrinkage cracks by increasing the tensile capacity of plastic concrete. Reducing the formation of microcracks prevents them developing into larger cracks during subsequent drying and shrinking phases.

Masterfibre can be used as an alternative secondary reinforcement system to welded wire mesh in slab on-grade applications.

Masterfibre is compatible with all BASF Construction Chemicals admixtures. The action of **Masterfibre** in concrete is purely mechanical and will not affect the hydration process

Note: **Masterfibre** does not replace structural reinforcement and hence cannot be used to increase shrinkage control joint spacings, or decrease slab thicknesses.

FIELDS OF APPLICATION

Masterfibre is the ideal secondary reinforcement for:

- All concrete slabwork where crack control is a major requirement.
- Thin layer concrete overlays.
- Shotcrete applications.
- Kerbing or slipforming operations.
- Alternative secondary reinforcement to welded wire mesh for slab on-grade applications.
- Shatterproof or impact resistant concrete.
- Precast concrete.

FEATURES AND BENEFITS

- Controls plastic shrinkage cracking
- Reduces concrete permeability
- Improved shatter impact resistance
- Thoroughly disperses through concrete
- Fibres are inert and non-corrosive
- Safe and easy to use
- Improves concrete cohesion for inclined and slip formed placements.

PROPERTIES

Melting Point	160 – 170°C
Ignition Temperature	Above 350°C
Density	0.905 g/ml
Absorption	Nil
Thermal Conductivity	Low
Electrical Conductivity	Low
Acid & Salt Resistance	High
Modulus (Youngs)	3.5 kN/mm ²
Specific Gravity	0.9
Product Length	19 mm

APPLICATION

Masterfibre is added to the concrete mix either at:

- i) the concrete batching plant at any time during the mixing process
- ii) on site into the concrete truck drum

Allow a minimum of five minutes mixing at the recommended drum mixing speed to ensure thorough distribution through the concrete mix.

Concrete Finishing

Concrete with **Masterfibre** is placed and handled exactly as for plain concrete.

Proper timing of the finishing operation is critical to minimise the 'hairy concrete' effect. Concrete with fibres tends to appear stiffer than it actually is due to the increased internal cohesion, and therefore the effect of the fibres on timing must be recognised.

When power floating is used the machine should begin operation when the surface is dull, without bleedwater, and can be depressed approximately 3 mm. At this time the powerfloat blades should be flat. During successive trowelling the angle of the blades should be slightly increased but the raised edges should never be more than 25 mm above the surface. Finishing with a power float at the correct timing (i.e. not too early) will ensure a surface as smooth and dense as that for plain concrete without fibres.

Concrete with **Masterfibre** is compatible with all concrete surface treatments

- power floated
- hand trowelled
- exposed aggregate
- coloured concrete



The Chemical Company

MASTERFIBRE

- dry shake surface hardener
- liquid hardeners
- concrete sealers
- stamped/stencilled concrete.

DOSAGE

Masterfibre is dosed at 0.9 kg per cubic metre. Higher dose rates may be specified by consulting engineers.

PACKAGING

Masterfibre is supplied in 0.9 kg degradable bags. Bags can be ordered separately or in cartons consisting of 12 bags.

SHELF LIFE

Masterfibre can be kept for more than 12 months time if stored in original packaging, in a cool dry place and protected against physical damage.

PRECAUTIONS

For detailed Health, Safety and Environmental recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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STATEMENT OF RESPONSIBILITY

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NOTE

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