

MasterFiber® 240

Polypropylene macro fiber, class II according to EN 14889-2

TYPICAL APPLICATIONS

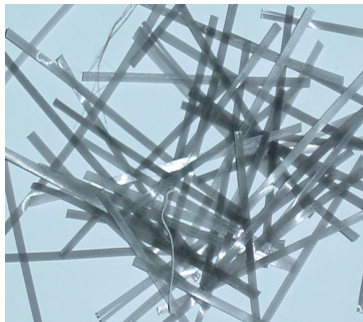
According to EN 14889-2 this fiber is supposed to be used for structural purposes in concrete, mortar and grout.

ADVANTAGES

- Improves the ductility of concrete
- Transfers tensile stresses and bridges cracks in cementitious applications
- Decreases crack propensity due to constrained deformations induced by drying shrinkage and temperature gradients and allows to partially or fully substitute related mesh reinforcement
- Can be considered as structural reinforcement according to Model Code
- Excellent resistance in alkaline and acidic environment
- Provides rust free reinforcing solutions
- Easy to dose with limited impact on workability
- Safe to handle
- No negative impact regarding machinery wear

PACKAGING

MasterFiber 240 is packaged and comes pre-weighed in 6 kg transparent plastic bags or in cardboard boxes for dosing into the mixer. Alternative pack sizes are available upon request and should be specified when ordering.



STANDARDS

This fiber is certified according to EN 14889-2.

TYPICAL PROPERTIES*

Properties	Values
Polymer type	Polyolefin
Colour	Black
Density	<1 kg/m ³
Fiber class	II
Fiber longitudinal shape	Crimped
Fiber sectional shape	Elliptical
Equivalent diameter	0,85 mm
Fiber length	40 mm
Aspect ratio	47
Influence on the consistency of concrete	
Fiber dosage	6 kg
Vébé-Time with fiber	3 sec
Tensile strength	302 MPa
Modulus (secant) of elasticity	1780 MPa
Melting point T _s	ca. 150 – 170°C
Ignition point T _i	ca. 350°C

APPLICATION GUIDELINES

DOSAGE

The recommended dosage range for **MasterFiber 240** is 2.5 to 10 kg/m³.

Higher dosages are generally possible but substantial re-design of a given concrete mix design is required.

DOSING AND MIXING

Appropriate fiber dispersion can be achieved either by adding the fibers to the aggregate belt or by adding the fibers via a sufficient dosing equipment directly into the mixer or ready-mix truck to the already mixed concrete. While processing attention shall be paid that fibers do not separate or agglomerate (e.g. during discharge to mixer), regarding the latter one special care should be taken that fibers are added to zones with sufficient shear. Our recommendation is to continue mixing for minimum 90-120 seconds after the addition of fibers. Very high fiber dosages may require significantly higher mixing time in order to achieve sufficient fiber dispersion.

MasterFiber[®] 240

COMBINATION

Because of its inert nature, this fiber is combinable with all products of the Master Builders Solutions product range. As generally recommended also for combination of this fiber with MasterAir products initial and identity testing should be performed.

WATCHPOINTS

The addition of fibers to a concrete might decrease its consistency. This should not be compensated by adding water to the mix. The recommendation is to optimize the mix either by adapting the mix design or by adding a superplasticizer. The mechanical performance of fibers is influenced by the concrete mix design and cementitious materials used. In order to evaluate properly preliminary tests under practical conditions with regard to mixing, placing and curing are advisable.

For any further advice, please contact your Master Builders Solutions Technical Department.

STORAGE AND SHELF LIFE

The shelf life is 48 months, if stored in original packaging between +5°C and +30°C protected from humidity and direct sun light. Protect against fire.

HEALTH AND SAFETY

MasterFiber 240 is extremely stable, presenting little hazard to health. However, in fire conditions, carbon monoxide, carbon dioxide and other gases or fumes may be evolved.

The usual precautions and measures should be taken for handling any chemical substance. For example, use protective gloves and glasses. Wash hands before a break and on finishing work. Do not eat, drink or smoke during application.

The disposal of the product and its packaging is the responsibility of the end user and should be carried out according to current legislation.

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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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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