

# MC-Fibre Poly 31/06 Micro

Multifilament polypropylene fibres for mortars and concrete



## PRODUCT PROPERTIES

- Multifilament polypropylene-based micro-polymer fibre
- Reduces plastic shrinkage cracking
- Increases passive fire resistance
- Reduces permeability
- Increases tensile strength and durability
- Increases resistance to explosive spalling and abrasion
- Improves cohesion in fresh concrete and reduces the tendency to segregate
- Optimises the green strength of the young concrete
- High alkali resistance
- Easy handling due to manual addition
- Certified according to EN 14889-2, class Ia - microfibres

## AREAS OF APPLICATION

- For the production of concrete and mortar in general building construction
- For the production of concrete in civil engineering, e.g. shotcrete, segments, tunnel linings
- For the production of concrete floors in agricultural construction
- For prefabricated construction and in-situ concrete
- For concrete traffic areas
- For the production of foundations and floor slabs
- For the production of concrete for repair work
- For the production of screeds

## APPLICATION ADVICE

MC-Fibre Poly 31/06 Micro is a polypropylene-based micro-polymer fibre. These are mixed into the fresh concrete and mortar and then form a three-dimensional, fine-meshed reinforcement mesh in the inner cross-section.

MC-Fibre Poly 31/06 Micro is used in particular in the construction of open areas, as plastic shrinkage or settlement can cause microcracks, which can be minimised at an early stage.

### Installation:

MC-Fibre Poly 31/06 Micro is incorporated at the end of the mixing process, after all concrete and mortar components have been added. On the construction site, MC-Fibre Poly 31/06 Micro is added directly to the concrete mixer. Dosing is done manually by throwing the water-soluble paper bags into the mixture.

For even distribution of the fibre in the concrete and mortar matrix, an extended mixing time of approx. 5 minutes is required.

### Dosing:

The recommended range for fibre dosage is based on the specifications of the general rules of technology. As an example, the minimum quantity to ensure ductility or to control cracking is specified in EN 14487-1 Shotcrete. This is based on McKee's theoretical approaches to average fibre spacing.

The recommended dosage is 0.6 - 2.4 kg/m<sup>3</sup> depending on the design.

### Other notes:

The addition of MC-Fibre Poly 31/06 Micro does not replace the measures for curing the concrete and mortar. The specifications in EN 13670 /DIN 1045-2 must be observed.

MC-Fibre Poly 31/06 Micro can be used safely in reinforced concrete, as no negative effects on the reinforcement are known and it does not impair the bond between steel and concrete.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Fibre type		Polymer fibre	Polypropylen
Equivalent diameter	mm	0.031	
Density	g/cm <sup>3</sup>	0.91	
Dosage recommendation	kg/m <sup>3</sup>	0.6 - 2.4	
Fibre classification		class Ia	acc. to EN 14889-2
Fibre length	mm	6	
Slenderness ratio		193.55	
Melting point	°C	110	
Ignition temperature	°C	280	
Lineal density	dtex	6.7	
Tensile strength	N/mm <sup>2</sup>	364	

All technical values are laboratory results determined at 21°C ±2°C and 65% relative humidity.

Colour	white
Fibre designation	Microfibre, multifilament
Notified body	Bureau Veritas Certification, Iberia
Certificate of conformity of in-company production control	EP0211-12-CPR2011/02/27
Delivery form	0,6 kg water-soluble paper bag 18 kg box (30 paper bags of 0,6 kg) 1 palett 360 kg (20 boxes of 18 kg)
Storage	Can be stored in original sealed packages at temperatures between 5°C and 30°C in dry conditions for at least 24 months.

### Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets.

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2500024815]