Fortfiber™ FF

(polypropylene fibrillated fibres)

FEATURES

- Packets of fibrillated fibres, fibres break loose through the friction of the aggregates
- Ideal for Chapes-Screeds
- High strength, High E-modulus
- Special fibre coating ensures excellent distribution throughout the concrete matrix
- Chemically inert: good resistance to all acids and alkalis (= alkali-resistent)

APPLICATION

- Prevents the formation of plastic and drying shrinkage cracks (especially for floors and roads) due to the increase of the tenacity of "green" concrete or screeds.
- Increases the ductility of concrete or screed.
- Improves the impact resistance of concrete or screed, preventing damage of angles and edges
- Reduces transport damage of prefab concrete
- Allows faster removing of the formwork: faster execution due to a better cohesion
- Increases the liquid density and thus better freeze/thaw resistance. The penetration of salts is hampered
- Improves the flame retardant properties of high strength concrete: no spalling of the concrete.
- Reduces early segregation and bleeding.

TECHNICAL CHARACTERISTICS

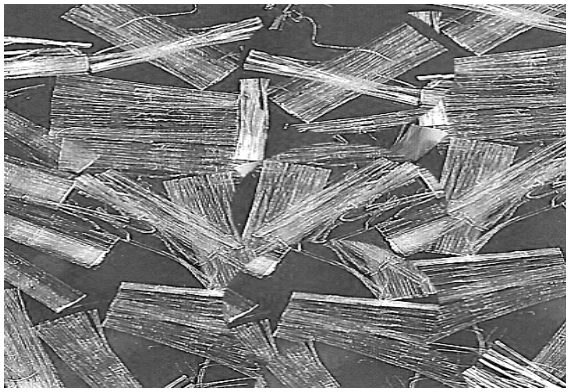
Raw Material	Polypropylene C_3H_6
Density	910 kg/m³
Fibre length	12,8 - 19,3 - 38,6 mm
Fibre Diameter	45 x 550 µm
Colour	Transparant
Breaking Strength	> 300 MPa
Elongation at break	< 11%
E-modulus 1%	4 -5 GPa
Water absorption	0 %
Max. temperature	145 °C

DOSAGE

Fortfiber™ FF can be added in the central mixer or the on-site truck mixer, both before and after the water. If added after, mix for another 5 minutes.

Fortfiber™ FF can be pumped,poured or shotcreted.

To prevent cracking in plastic concrete or screed, 900 grams of fibre are added per m³.



PROCESSING

When adding 900 grams of fibres per m³ (0.1 %), there is no need to adapt the composition of the concrete. Where greater quantities of fibre are added, a plasticiser must be used at 0.5% of the cement content and this in order to maintain the same working qualities.

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FIBRE TYPES - APPLICATIONS

Fortfiber™ FF 12
Fibre length 12,8 mm
Application *Architectural concrete, shrinkage free mortars, screeds, renders*

Fortfiber™ FF 25 Standard
Fibre length 19,3 mm
Application *Industrial floors, parking lots, Screeds*

Fortfiber™ FF 45
Fibre length 38,6 mm
Application *Industrial floors, New-Jersey barriers*

SECURITY

No ecological, toxicological or safety risks.
Unlike steel reinforcement there is no risk of injury from protruding fibres. Projecting fibres disappear with polishing. On unpolished concrete, they can be removed with a flame torch.
A 91/155/EC material safety data sheet is available on request.

PACKAGING

PREWEIGHED PACKAGING

* Repulpable paper bags, 600 gr
  25 bags per box 80 x 40 x 33 cm, net 15 kg
  18 boxes per pallet 80 x 120 cm, net 270 kg

* Repulpable paper bags, 900 gr
  20 bags per box 80 x 40 x 33 cm, net 18 kg
  18 boxes per pallet 80 x 120 cm, net 324 kg

BULK PACKAGING

* Box 80 x 40 x 33 cm, net 20 kg
  18 boxes per pallet 80 x 120 cm, net 360 kg

* Box 118 x 98 x 85 cm, net approx. 225 kg
  2 boxes per pallet, net 450 kg

TECHNICAL REPORTS

" The influence of polypropylene fibres on the development of plastic shrinkage cracks in concrete."
IBBC TNO B-89-761
" Testing of a polypropylene fibre according CUR-42"
Intron
" Controlled distortion bending tests on concrete prismas with polypropylene fibres."
Magnel Laboratory, University of Ghent.

Reports are available for consultation.

The above mentioned values are indicative and are provided without any guarantee. **BK International** does not assume any responsibility resulting from the application of these data.

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