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FIBRILs S

FIBRILs is registered trade name of an alkali – resistant polyolefin fibres for the purpose of reinforcement of concrete and cement – bound products.

FEATURES

- Multifilament micro synthetic fibres for reinforcing concrete
- High strength and ductility
- High modulus
- Good bond within concrete due to special shape and porosity
- Special fibre coating ensures excellent distribution throughout the concrete matrix
- Good resistance to all acids and alkalis

APLICATION

- Precast concrete elements
- Pre-covering in tunnels
- Extruded roadway structures
- Rigid concrete floors
- Foundation layers
- Parking areas and airport runways
- Consolidation of walls
- Marine / coastal concrete

TECHNICAL CHARACTERISTIC

Raw material	Modified Olefin/monofil	Young's Modulus 10-30 % (GPa)	≥ 3,2
Structure	monofil	Shape	multifilament
Thickness	18, 30,35 mic	Equivalent diameter	7,5 dtex/32mic
Numbers of fibres	440 mio/3 mm–74 mio/18mm	Area weight	0,91 kg/dm ³
Length/diameter ratio	1 : 95/3mm – 1:560/18 mm	Elongation at break	80 – 120 %
Density * (kg/m ³)	0,9 – 0,94	Tensile strength (MPa)	≥ 300
Fibre length (mm	3,6,12,18,24,36	Melting point	160 °C
Absorptive capacity * (%)	0	Ignition point	590 °C
Colour	Natural	Chemical resistance	Excellent
Surface	microporosity /round	Alkali resistance	Excellent

* All values are nominal and measured according NBN EN 14889-2 (2006), NBN EN ISO 6892-1(2009)

Tornado Plus reserves the right to change specifications of all products without prior notice

PACKAGING

For simple applications and dosage, the fibres are packed into bags 910 gr, 10 kg, 20 kg and in big bags. Fibres is simple added to the wet concrete. Store materials in a cool dry place. Do not store in direct sunlight.

DOSAGE

Depending on the structural requirements, the recommended quantity to be added is normally 1 to 2 kg micro fibres per m³ of concrete.

PROCESSING

Fibres are treated at the surface with special chemical substance, which improves mixing of the concrete and enables regular dispersion of the fibres in the concrete mass.

The fibre put into the mixer directly or can be added by means of a dosage machine. An additional mixing time of 2-3 min is required, depending on the dosage. At the end of the mixing process, the fibres have to be distributed evenly.

SAFETY

No ecological, toxicological or safety risks

Unlike steel reinforcement, there is no risk of injury from protruding fibres. Projecting fibres disappear within polishing. On unpolished concrete, they can be removed with a flame torch.

The above-mentioned values are indicative and are provided without any guarantee. Tornado Plus does not assume any responsibility resulting from the applications of these data. All reports are available for consultations.

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