



FIBRIL STRUCTO®

X55

FIBRIL STRUCTO® is the registered trade name of a group of alkali-resistant polyolefin fibres for the purpose of reinforcement of concrete and cement-bound products.

FEATURES

- Monofilament macro synthetic fibres to replace traditional steel reinforcement
- High strength and ductility
- High modulus
- Good bond within concrete due to special shape
- Special fibre coating ensures excellent distribution throughout the concrete matrix
- Non-corrosive, easy to use and safer than steel fibres
- Good resistance to all acids and alkalis

APPLICATION

- 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 defence concrete

TECHNICAL CHARACTERISTICS

Raw material	Modified Olefin	Young's Modulus 10-30% (GPa)	6.2 ± 15%
Density* (kg/m ³)	0.90..0.94	Tensile strength (MPa)	510 ± 15%
Fibre length* (mm)	55	N° of fibres per kg	>60000
Fibre shape	Macro-Structo	Absorptive capacity* (%)	0
Colour	Natural	Chemical resistance	Excellent
Surface	embossed	Alkali resistance	Excellent
Diameter (mm)	0.65		

* All values are nominal and measured according NBN EN 14889-2(2006), NBN EN ISO 6892-1 A3(2009)

PACKAGING

For simple application and dosage the fibres are packed into pucks, which is simply added to the wet concrete. These pucks are wrapped in film which dissolves within seconds during mixing and the individual fibres are distributed evenly throughout the concrete mixture. The fibre-pucks are packaged in 15kg box (450kg/pal 80x120) or 5kg box (825kg/pal 120x120).

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 4 to 7 kg macro fibres per m³.

PROCESSING

The fibre-pucks can be put into the mixer directly or can be added by means of a dosage machine. The water-soluble film around the fibres dissolves within seconds in the concrete. An additional mixing time of 2-3min 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 with polishing. On unpolished concrete, they can be removed with a flame torch.

The above mentioned values are indicative and are provided without any guarantee. FITCO N.V. does not assume any responsibility resulting from the application of these data. All reports are available for consultation.