

Ha-Be PP-Faser 18 µm FP

Item No 4503

Polypropylene fibre for improving concrete's fire resistance

FIELDS OF APPLICATION

Ha-Be PP-Faser 18 µm FP is an ultra-fine, synthetic fibre designed for improving the fire resistance of concrete. At high rising temperatures, the fibre melts and forms micropores in the concrete which allow the vaporised water pressure to release. Concrete spalling can thereby be reduced or retarded.

Additionally, Ha-Be PP-Faser 18 µm FP reduces the crack formation in cementitious construction materials through improving its resistance to early age shrinkage cracking.

Application range of Ha-Be PP-Faser 18 µm FP:

- general building construction
- concrete applied in underground constructions (shotcrete and inner tunnel shells)
- industrial floors
- agricultural buildings
- prefabrication, precast and manufactured concrete products
- concrete traffic areas
- Foundations and floor slabs
- Screeds

Ha-Be PP-Faser 18 µm FP enables:

- Improved fire resistance
- Reduced of shrinkage cracks
- Optimization of green strength
- Improved resistance to impact stress and wear
- No corrosion
- High durability of concrete

DOSAGE

General dosage recommendation:

0.6 – 2.0 kg/m³

Dosage recommendation for concrete with high fire resistance:

1.4 – 2.0 kg/m³

Polypropylene fibres may affect the consistence and air void content of unset concrete. Before using the fibre suitability tests are required.

WORKING PRINCIPLE

Having good dispersing properties Ha-Be PP-Faser 18 µm FP can be dispersed easily, homogeneously and three-dimensionally throughout the fresh concrete.

The degree of fibre finesse and its frequency attains a homogeneous stress spread in concrete and minimizes shrinkage and stress cracks significantly.

Ha-Be PP-Faser 18 µm FP improves concrete's bending tension stress, its impact strength and increases its ductility.

TECHNICAL DATA

Substance	polypropylene
Colour	white
Available in the following length	6, 12 and 18 mm
Diameter	18 µm
Form	circular, flat
Bulk density	0.91 g/cm ³
Melting point	~ 160 °C
Tensile strength	~ 550 N/mm ²
Elastic modulus	~ 4000 N/mm ²
Storage conditions	Store dry. Protect from damp.

PROCESSING INDICATIONS

The mixing time must comply with the regulations defined in EN 206-1.

This product is not classified as hazardous according to the CLP regulations. See safety data sheet for further information.

PACKAGING

Trading units upon request.
The fibre can be delivered in bags or in big bags.

REMARKS

This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indication are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand.

Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

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SUITABILITY- AND PRE-TESTS ARE NECESSARY BEFORE APPLYING THE FIBRE!