Ha-Be PP-Fibre 20 µm

Item No 4508

Polypropylene fibre acc. to EN 14889-2 for improving concrete's fire resistance

National technical approval, approval no. Z-3.73-2170, DIBt, Berlin

FIELDS OF APPLICATION

Ha-Be PP-Fibre 20 µm 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-Fibre 20 µm reduces the crack formation in cementitious construction materials through improving its resistance to early age shrinkage cracking.

Application range of Ha-Be PP-Fibre 20 µm:

- 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-Fibre 20 µm enables:

- Improved fire resistance
- Reduction of shrinkage cracks
- Optimization of green strength
- Improved resistance to impact stress and wear
- High durability of concrete

DOSAGE

General dosage recommendation:
0.5 – 2.2 kg/m³

WORKING PRINCIPLE

Having good dispersing properties Ha-Be PP-Fibre 20 µm 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 minimises shrinkage and stress cracks significantly.

Ha-Be PP-Fibre 20 µm improves concrete's bending tension stress, its impact strength and increases its ductility.

TECHNICAL DATA

Substance	polypropylene
Colour	colourless to white
Available in the following lengths	3, 6, 12, 18 mm
Diameter	20 µm
Form	circular
Bulk density	0.91 g/cm³
Melting point	~ 160 ºC
Tensile strength	~ 300 N/mm²
Elastic modulus	~ 2600 N/mm²
Storage conditions	Store dry. Protect from damp.

PROCESSING INDICATIONS

The dosing can be done before or after the addition of the mixing water.

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

In a truck mixer, the duration of re-mixing after the main mixing process should not be less than 1 min/m^3 and not less than 5 minutes after adding the admixture.

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!

Ha-Be Betonchemie GmbH | Stüvestraße 39 | D- 31785 Hameln | Tel. +49 (0) 5151 587-0 | Fax +49 (0) 5151 587-55 | info@ha-be.com | www.ha-be.com