

Polypropylene fibers for concrete

**AEA OF USE**

Concrete Floor Fibers are fine monofilament synthetic microfibres suitable for use in concrete and mortar, and are particularly suitable for concrete flooring and cement screeds.

**ACTION**

The fibres take up the internal stresses that occur in concrete during drying, so they are used to reduce the risk of surface cracks caused by shrinkage in concrete and other cement-based building materials.

In addition, fibres increase the fire resistance of concrete. At high temperatures, the fibres melt, forming micropores in the concrete that allow the water vapour pressure from the fire to be released, thus prolonging the concrete's breaking time in the event of a fire.

**TECHNICAL CHARACTERISTICS**

Characteristic	Declared value
Colour	Transparent
Shape	Straight fibres with a round profile
Thickness (diameter)	30 - 32 µm
Length	[12 ± 1] mm
Tensile strength	467 - 548 MPa
Elastic module	4048 - 5674 MPa
Density	0.91 g/cm <sup>3</sup>
Specific surface area	140 m <sup>2</sup> /kg
Melting point	approx. 160 °C
Number of fibres / kg	approx. 120 million

**COMPLIANCE**

**Concrete Floor Fibers** - Polymer Fibers for Concrete, conform to the requirements of EN 14889-2: Fibers for Concrete - Polymer Fibers, Class Ia

**DOSAGE AND INSTRUCTIONS FOR USE**

- We dose 0.6 - 2.0 kg/m<sup>3</sup> of concrete.
- The usual dosage is 0.9 kg /m<sup>3</sup> of concrete [1 bag /m<sup>3</sup> of concrete]

- The fibres are added to the concrete mixer, either on top of the aggregate mix or at the same time as the cement or water is added.

We recommend mixing the concrete for at least 3 minutes after the fibres have been added to ensure that the fibres are homogeneously distributed throughout the concrete mix. At high fibre dosing, we recommend that the mixing time is longer.

- The use of polypropylene fibres can affect the consistency and content of air pores in fresh concrete. Therefore, before use, we recommend performing preliminary tests at the selected dosage with the materials that will actually be used for the production of concrete.

## **ADVANTAGES OF USAGE**

- They reduce the risk of cracking due to plastic shrinkage
- They improve the fire resistance of concrete
- They reduce the bleeding of concrete
- There is no risk of rust stains
- Easy to use

## **PACKAGING**

water-soluble bags of 0.9 kg

## **STORAGE**

- Store the product in its original sealed container at temperatures between +5 °C and +30 °C. Protect it from damage, moisture, freezing and direct sunlight.
- A properly stored product has a shelf life of at least 3 years after the date of manufacture.
- The product may still be used after the date of expiry, but the characteristics important for the intended use have to be examined.

## **HEALTH, SAFETY AND ECOLOGY**

No special precautions are needed when working with Concrete Floor Fibers polypropylene fibres.

## **WARNING**

Instructions and recommendations are given based on tests in our laboratories and experience to date. Due to specific conditions and work methods, preliminary tests are advised for every type of use, for each individual case of use of the product alone, or in combination with other admixtures. Since we cannot influence the course of work, we cannot be held responsible for its quality!



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