

# SikaFibre®

## Synthetic fibres for concrete and mortar

### Product Description

SikaFibre® is based on specially treated polypropylene. They are added to concrete and mortar mixes to reduce shrinkage cracking in the plastic stage.

- SikaFibre® M Monofilament for wet batch mixes (> 35 mm slump)
- SikaFibre® F Fibrillated for dry batch mixes (< 35 mm slump)

*Note:* The fibrillated fibres are coarser and will give a 'hairy' surface appearance.

### Uses

SikaFibre® can be used for:

- Airport apron and car park slabs
- Concrete and mortar subjected to impact loads
- Concrete needing high cohesion such as extruded concrete or when laying concrete on a gradient
- Thin applications of shotcrete or gunite
- Precast concrete to decrease demoulding time
- Screed, plaster, etc

Typical Applications	SikaFibre® M	SikaFibre® F
Industrial floors	X	
Shotcrete / Gunite	X	X
Car parks	X	
Precast concrete	X	X
Imprinted concrete	X	
Piling	X	
Water retaining	X	
Extruded concrete	X	
Bridges	X	
Roads	X	
Render		X
Screeds		X
Plaster		X
Concrete repair		X
Mortar		X



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**Characteristics / Advantages**

Due to their fineness and special surface treatment, SikaFibre® can be easily dispersed in the concrete or mortar and create a dense matrix that leads to:

- Improved cohesiveness of the fresh concrete
- Reduction of shrinkage cracks
- Increased resistance to impact loads
- Reduced concrete permeability
- Resistance to slab curling
- Improved fire damage properties

*Note:* Monofilament SikaFibre® is 18 microns in diameter which is smaller than most other fibres in the market. This fineness gives a greater number of fibres per kg (~ 180 million per m<sup>2</sup> of concrete) and a greater effective surface area (225 m<sup>2</sup> per kg).

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**Product Data**

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**Form**

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**Appearance / Colour** White Polypropylene fibres with surface agent

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**Packaging**

- Soluble 600 g bags pre-dosed for 1 m<sup>3</sup> of concrete or mortar
- 40 bags per box

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**Storage**

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**Storage Conditions / Shelf Life** 3 years from the date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight.

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**Technical Data**

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**Tensile Strength** 300 – 400 N/mm<sup>2</sup>

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**Elastic Modulus** 6,000 – 9,000 N/mm<sup>2</sup>

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**System Information**

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**Application Details**

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**Consumption**

- Concrete (aggregate size greater than 10 mm)  
600 g of SikaFibre® (12 mm / 18 mm) per m<sup>3</sup> of concrete (SikaFibre® M)
- Mortar (aggregate size less than 10 mm)  
2 x 600 g of SikaFibre® (6 mm) per m<sup>3</sup> of mortar (SikaFibre® F)

*Note:*

For reduction of explosive spalling higher dosages, typically 1 – 2 kg per m<sup>2</sup> will be required.

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## Application Instructions

<b>Mixing</b>	<p>SikaFibre® can be added directly into the truck mixer. The soluble paper bag will dissolve after a mixing time of 2 – 6 minutes depending on the quantity of material added.</p> <p>For site mixed screed or plaster with a maximum aggregate of 6 mm, manually add the fibres into the mixer without the bag, as the bag might not fully dissolve due to lack of coarse particles.</p>
<b>Placing</b>	To improve the placing of the fresh concrete and its final performance, the use of Sika® Admixtures such as Plastocrete® or Sikament® is advisable.

## Curing Details

<b>Curing</b>	To achieve maximum benefits from the addition of SikaFibre®, the concrete shall be cured in accordance with standard curing practice.
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## Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet (available on request) containing physical, ecological, toxicological and other safety-related data.

## Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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