

Sika Fiber®

Monofilament Polypropylene Fibres

Product Description

- Sika Fiber® is a monofilament polypropylene additive fibres to reduce the occurrence of plastic shrinkage and plastic settlement cracking, whilst enhancing the surface properties and durability of hardened cementitious products.
- The fibres are extremely fine, single filaments, measuring 18 microns in diameter, cut to lengths of 3, 6, 12 and 18 mm, in accordance with maximum aggregate size considerations and surface appearance requirements. The fibres are coated with surfactant to improve initial dispersion and bond.

Uses

- Sika Fiber® are used in the following applications:
- Internal Floor Slabs
- Water Retaining Structures
- Concrete Buildings
- Repair Materials
- External Hard Standings
- Pattern Imprinted Concrete
- Bridges
- Precast Concrete
- Fire Resistance
- Extruded Concrete
- Agricultural Areas
- Piling Concrete
- Shotcrete/Gunite

Advantages

- Reduced Plastic Shrinkage Cracks
- Reduced Plastic Settlement
- Reduced Bleeding
- Alternative to Crack Control Mesh
- Reduced Water & Chemical Permeability
- Reduced Explosive Spalling in Fire
- Increased Abrasion Properties
- Increased Impact Resistance
- Improved Freeze/Thaw Resistance

Standards

Sika Fiber® is manufactured to EN ISO 9001 standards and has full British Board Agreement (BBA) approval.
Sika Fiber® has been tested as per SCAQMD Rule 1168.
Result: VOC Content 0 g/L

Product Data

Base 100% Virgin Polypropylene

Colour Natural

Design Monofilament Fiber

Fibre Length 3, 6, 12 & 18 mm

Diameter 18 micron nominal

Packaging

0.9 Kg of fibres are packed in either plastic or degradable paper bags, where one bag of fibres is the required amount of product for one cubic meter of concrete.
Bagged fibres are placed in boxes for ease of handling. Fibres can also be ordered in bulk quantities and packed in boxes of 20 - 500 Kg.



Storage Conditions Boxes of fibres must be stored on a clean surface, in dry conditions under cover and away from the possibility of damage.

Technical Data

Density 0.91 gm nominal

Absorption Nil

Specific Surface Area 250 sq meter per KG

Melt Point 160 °C

Ignition Point 365 °C

Thermal Conductivity Low

Electrical Conductivity Low

Acid Resistance High

Alkali Resistance 100%

Application

Dosage ■ The recommended dosage rate is 0.90 kg per cubic meter of concrete

Mixing Fibres should ideally be added at the batching plant; although in some instances this may not be possible and addition at site will be the only option.

If mixing at the batching plant, fibres should be the first constituent, along with half the mixing water. After all the other ingredients have been added, including the remaining mixing water, the concrete should be mixed for a minimum of 70 revolutions at full speed to ensure uniform fibre dispersion.

In the case of site mixing, a minimum of 70 drum revolutions is highly recommended.

Notes Quality assurance checks are conducted on surfactant and moisture content, fibre weight and fineness.

Sika Fiber® fibres are extremely fine and although slightly visible at the plastic stage, are not readily seen on the hardened surface.

Safety Instructions

Ecology Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

Toxicity Non-Toxic under relevant health and safety codes.

Transport Non-hazardous.

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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