

SikaFiber® HP

Ultra-Fine Monofilament Polypropylene Concrete Fibres

Description	SikaFiber® HP is a new generation of micro monofilament polypropylene fibre for use in concrete. Specifically engineered and manufactured in an ISO 9001:2000-certified facility for use as secondary concrete reinforcement.
Where to Use	On all types of concrete which demonstrate a need for controlling plastic shrinkage and settlement cracking, such as: <ul style="list-style-type: none"> ■ Commercial or residential slabs-on-ground; ■ Concrete overlays; ■ Self-levelling screed; ■ Pre-cast applications; ■ Shotcrete or stucco.
Advantages	<ul style="list-style-type: none"> ■ Higher fibre count per kg than standard monofilament fibres; ■ Virtually invisible in concrete; ■ Allows for lower dosage compared to other monofilament types of fibres; ■ Provides multi-dimensional reinforcement; ■ Increases impact-, shatter and abrasion-resistance of new concrete; ■ Enhances durability and toughness of concrete; ■ Reduces bleeding; ■ Excellent finishability. <p>Furthermore, the use of SikaFiber® HP:</p> <ul style="list-style-type: none"> ■ Reduces the formation of plastic and drying shrinkage cracks in concrete. ■ Helps concrete at the early ages, to the benefit of precasters where stripping time and handling is important. ■ In shotcrete applications, increases the compaction and density of shotcrete, reducing rebound and permitting thicker layers per pass.
Standards	SikaFiber® HP meets the requirements of ASTM C III6 Type III and ICC-ES AC32 and is recognized in ICC ES evaluation report ESR-1699, Section 3.1.1, Plastic shrinkage reinforcement at 0.3 kg/m ³ .

Typical Data

Packaging	13 mm length 300 g degradable bags 35 bags/box 27 boxes/pallet
Fibre Type	Monofilament polypropylene
Shelf Life and Storage	5 years stored in original and unopened packaging. Store in dry conditions. Protect product from the moisture and rain.
Properties	
Absorption	Nil
Specific Gravity	0.91
Electrical Conductivity	Low
E-Modulus	3.5 GPa
Alkali resistance	Excellent alkali resistance
Acid and Salt Resistance	High
Melt Point	162 °C
Ignition Point	593 °C
Thermal Conductivity	Low

How to Use

Dosage Standard recommended dosage rate of SikaFiber® HP is 300 to 600 g/m³ of concrete.



Construction

Mixing	SikaFiber® HP micro reinforcing is a mechanical, not chemical, process. The fibres are added to the mixer before, during or after batching the other concrete materials and mixed at high speed for four to five minutes. Additional mixing does not adversely affect the distribution or overall performance of SikaFiber® HP. The addition of SikaFiber® HP at the recommended dosage rates to a given mix may decrease the slump; however, additional water should not be added. Only a water-reducing or high-range water-reducing admixture should be used to adjust concrete to the desired workability required for placement.
Tooling and Finishing	Fibre-reinforced concrete can be finished using most finishing techniques. SikaFiber® HP does not affect the finishing characteristics of concrete. SikaFiber® HP can be used in power- or hand-trowelled concrete, and in coloured and broom finished concrete.
Clean Up	Use personal protective equipment (chemical resistant goggles/gloves/clothing). Ventilate area. In absence of adequate ventilation, use properly-fitted NIOSH respirator. Without direct contact, remove spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Safety Data Sheet containing physical, ecological, toxicological and other safety-related data. KEEP OUT OF REACH OF CHILDREN FOR INDUSTRIAL USE ONLY

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, within their shelf life. 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 recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



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