SikaFiber® HP
Ultra-Fine Monofilament Polypropylene Concrete Fibres

Description

Where to Use
On all types of concrete which demonstrate a need for controlling plastic shrinkage and settlement cracking, such as:
- Commercial or residential slabs-on-ground;
- Concrete overlays;
- Self-levelling screed;
- Pre-cast applications;
- Shotcrete or stucco.

Advantages
- 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.

Furthermore, the use of SikaFiber® HP:
- 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 1116 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/m³.

Typical Data
<table>
<thead>
<tr>
<th>Packaging</th>
<th>13 mm length</th>
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<tbody>
<tr>
<td></td>
<td>300 g degradable bags</td>
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<tr>
<td></td>
<td>35 bags/box</td>
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<tr>
<td></td>
<td>27 boxes/pallet</td>
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<tr>
<td>Fibre Type</td>
<td>Monofilament polypropylene</td>
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<tr>
<td>Shelf Life and Storage</td>
<td>5 years stored in original and unopened packaging. Store in dry conditions. Protect product from the moisture and rain.</td>
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</tbody>
</table>

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.
**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