

PRODUCT DATA SHEET

SikaFiber®-50 HPP

MACRO-SYNTHETIC FIBRES FOR CONCRETE

PRODUCT DESCRIPTION

SikaFiber®-50 HPP is a macro-synthetic fibre designed specifically for the reinforcement of concrete and other cementitious mixes. SikaFiber®-50 HPP fibres have an engineered contoured profile, which serves to effectively anchor the fibres into the concrete, thus resisting matrix pull-out and enhancing the concrete's performance even after it has developed stress cracks. Efficient dispersion allows much higher dosage levels resulting in performance levels which extend beyond those achieved with traditional secondary reinforcement.

USES

SikaFiber®-50 HPP fibres are not subject to corrosion and can be considered, in many applications, as an alternative to both steel fabric and steel fibres.

- Ground-supported slabs
- Sea defence
- External pavements
- Overlay's & topping
- Roads
- Airport pavements
- Precast

PRODUCT INFORMATION

Packaging	SikaFiber®-50 HPP are wrapped into pucks and placed into 10kg cartons or 4kg and 5kg soluble bags
Shelf Life	If stored in dry conditions shelf life is 5 years.
Storage Conditions	Store protected from direct sunlight and moisture
Dimensions	Fibre Length: 50mm Equivalent Diameter: 0.97 mm
Melting Point	164°C (328°F)

CHARACTERISTICS / ADVANTAGES

- Increases flexural toughness
- Increases cohesion and reduces segregation
- Increases impact and shatter resistance
- Non-magnetic
- Rustproof
- Chemically inert and alkali proof
- Reduced wear on concrete pumps and hoses
- Safe and easy to handle
- Simplified logistics
- Economical alternative to steel wire mesh and/or steel fibres

APPROVALS / STANDARDS

Conforms to the requirements of EN 14889-2:2006 Fibres for Concrete - Polymer Fibres, Class 2.

DoP 12961937, certified by Notified Body 0086 and provided with the CE mark

DoP 51820694, certified by Notified Body 0086 and provided with the UKCA mark

TECHNICAL INFORMATION

Tensile Strength	360 MPa
Tensile Modulus of Elasticity	8300 MPa
Resistance to Alkalinity	Alkali Proof

APPLICATION INFORMATION

Recommended Dosage	The dosage rate for SikaFiber®-50 HPP macro-synthetic fibres will vary depending on the application, mix design and the toughness requirements of each particular project. Typically, SikaFiber®-50 HPP macro-synthetic fibres dosage will be in the range of 4.0 to 9.0 kg per cubic meter of concrete.
Compatibility	SikaFiber®-50 HPP fibres are compatible with all concrete admixtures and performance enhancing chemicals, but require no admixtures to function.

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.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

Mixing

The specified dosage per cubic metre should be added to the mixer after batching the other concrete materials. After the addition of the fibres, the concrete should be mixed for sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of fibres throughout the concrete.

Placing

SikaFiber®-50 HPP macro-reinforced concrete can be pumped, sprayed or placed using conventional equipment as with other fibrous concrete.

Finishing

Conventional techniques and equipment can be used when finishing SikaFiber®-50 HPP fibre concrete.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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