

## PRODUCT DATA SHEET

# SikaFiber®-45 HPP

### MACRO-POLYMER CONCRETE FIBRE

#### PRODUCT DESCRIPTION

SikaFiber®-45 HPP is a macro-synthetic fibre designed specifically for the reinforcement of concrete and other cementitious mixes. SikaFiber®-45 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. This also allows much higher dosage levels resulting in performance levels which extend beyond those achieved with traditional secondary reinforcement.

#### USES

SikaFiber®-45 HPP fibres are non-corrosive 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

<b>Packaging</b>	SikaFiber®-45 HPP are wrapped into pucks and placed into 10kg cartons
<b>Appearance / Colour</b>	Fibre Type: monofilament macro synthetic fibre
<b>Shelf Life</b>	If stored in dry conditions shelf life is 5 years
<b>Storage Conditions</b>	Store protected from direct sunlight and moisture
<b>Dimensions</b>	<b>Length:</b> 45 mm <b>Equivalent Diameter:</b> 0.97 mm
<b>Melting Point</b>	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 53457617, certified by Factory Production Control Body 0086 and provided with the CE mark DoP 62966367, certified by Factory Production Control Body 0086 and provided with the CE mark

# APPLICATION INFORMATION

## Recommended Dosage

The dosage rate for SikaFiber®-45 HPP macro-synthetic fibres will vary depending on the application, mix design and the toughness requirements of each particular project. Typically, this will be in the range of 4.0 to 9.0 kg per cubic metre of concrete.

## 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

### REGULATION (EC) NO 1907/2006 - REACH

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in the product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0,1 % (w/w).

## APPLICATION INSTRUCTIONS

### Mix Design and Procedures

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 a minimum 5 minutes to ensure uniform distribution of the fibres throughout the concrete mix.

### Placing

SikaFiber®-45 HPP micro-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®-45 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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### Product Data Sheet

SikaFiber®-45 HPP  
May 2022, Version 01.02  
021408021000000129

SikaFiber-45HPP-en-GB-(05-2022)-1-2.pdf