

PRODUCT DATA SHEET

SikaFiber® Force-48

Synthetic macro fibre for shotcrete and concrete.

DESCRIPTION

SikaFiber® Force-48 is a 48 mm long macro synthetic fibre for use in structural concrete and shotcrete

USES

Sprayed concrete:

- Excavation stabilisation in tunnelling and mining
- Rock and ground stabilisation
- Temporary stabilisation
- Replacement of steel reinforcement

In-situ cast and precast concrete:

- Ground bearing slabs and industrial floors
- Foundations designed with fibre reinforced concrete
- Precast concrete elements
- Concrete applications requiring abrasion resistance

CHARACTERISTICS / ADVANTAGES

- Improves hardened concrete characteristics
- High energy absorption for sprayed concrete
- Can provide crack bridging properties to concrete
- No corrosion stains on surface

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 14889-2 - Fibres for concrete. Polymer fibres

PRODUCT INFORMATION

Composition	Polyolefin	
Packaging	5 kg water soluble bag 400 kg jumbo bag	
Appearance / Colour	Straight white embossed fibres	
Shelf life	24 months shelf life from date of production	
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.	
Density	~0,901 kg/m ³	
Dimensions	Diameter	~0,84 mm
	Length	~48 mm
Product declaration	EN 14889-2: Class II: Macro fibres	
Melting point	~164 °C	

TECHNICAL INFORMATION

Specific tensile strength	~465 N/mm ² (MPa)	(EN 14889-2)
Modulus of elasticity in tension	~7,5 kN/mm ² (GPa)	(EN 14889-2)

APPLICATION INFORMATION

Recommended dosage	3-10 kg/m ³
Compatibility	Compatible with other Sika® admixtures

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Partial or total replacement of steel reinforcement by fibres must be designed by an appropriately qualified Engineer. Contact Sika Technical Services for additional information.
- Fibres will not improve the quality of poor concrete.

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

DISPENSING

Add the fibres with the dry aggregates taking care to evenly distribute throughout the mix. The fibres can be added when all the mix components have been added although mixing time may need to be extended to ensure a uniform fibre distribution. As guidance in-

crease the mixing at least 1 minute per m³ of concrete. Do not add the fibres directly into the mixing water.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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® Force-48
December 2020, Version 01.02
02140802100000097

SikaFiberForce-48-en-ID-(12-2020)-1-2.pdf