

# 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 provides 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

|                            |  |          |
|----------------------------|--|----------|
| <b>Composition</b>         | Polyolefin   |          |
| <b>Packaging</b>           | 5 kg water soluble bags containing the fibre packs<br>Refer to current price list for packaging variations   |          |
| <b>Appearance / Colour</b> | Straight white embossed fibres   |          |
| <b>Shelf life</b>          | 24 months shelf life from date of production   |          |
| <b>Storage conditions</b>  | 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. |          |
| <b>Density</b>             | ~0,901 kg/m <sup>3</sup>   |          |
| <b>Dimensions</b>          | Diameter   | ~0,84 mm |
|                            | Length   | ~48 mm   |
| <b>Product Declaration</b> | EN 14889-2: Class II: Macro fibres   |          |
| <b>Melting Point</b>       | ~164 °C  |          |

## TECHNICAL INFORMATION

|                                  |                               |              |
|----------------------------------|-------------------------------|--------------|
| Specific Tensile Strength        | ~465 N/mm <sup>2</sup> (MPa)  | (EN 14889-2) |
| Modulus of Elasticity in Tension | ~7,5 kN/mm <sup>2</sup> (GPa) | (EN 14889-2) |

## APPLICATION INFORMATION

|                    |  |
|--------------------|--|
| Recommended Dosage | 3-10 kg/m <sup>3</sup>                 |
| Compatibility      | Compatible with other Sika® admixtures |

## 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 increase the mixing at least 1 minute per m<sup>3</sup> of concrete. Do not add the fibres directly into the mixing water.

### 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.

### 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.

### 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 the exact product data and uses.

## 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)

### 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.

#### Sika Manufacturing Nigeria LTD

10, Western Industrial Avenue,  
Isheri Riverview Estate,  
Lagos-Ibadan Expressway,  
Nigeria.  
Tel.: +234 80 90 44 22 21  
nga.sika.com



PRODUCT DATA SHEET  
SikaFiber® Force-48  
May 2020, Version 01.0  
02140802100000097

BUILDING TRUST

