

PRODUCT DATA SHEET

SikaFiber®-150

(formerly MFiber 150)

Structural polypropylene fiber for reinforcing of concrete

DESCRIPTION

SikaFiber®-150 is extruded from a natural polypropylene homo polymer and formed into a flat profile with profiled surface in order to anchor it in a cementitious matrix.

Due to the large number of fibres per kg, the fibre shape and its anchoring capacity into the concrete, SikaFiber®-150 improves the toughness and ductility of the concrete. SikaFiber®-150 is suitable for use in hot and tropical climatic conditions.

USES

SikaFiber®-150 is recommended for the ready mix concrete and wet sprayed concrete applications.

FEATURES

SikaFiber®-150 is user friendly and easy to dose into concrete mixes. SikaFiber®-150 provides resistance to acid and alkali normally present in the ground soil, therefore it is suitable for use in wet underground conditions.

PRODUCT INFORMATION

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| Fibre type | 100 % Polypropylene monofilament fibre |
| Packaging | The fibres are packed loosely in 6 kg transparent plastic bags or in cardboard boxes to suit easy dosing into the mixer. Alternative pack sizes are available upon request. |
| Appearance and colour | Flat profiled surface, translucent to black colour |
| Shelf life | Unlimited, provided the storage conditions are met. |
| Storage conditions | Store in original, unopened, sealed and undamaged packaging in dry conditions at temperatures of maximum +50 °C. Protect from direct sunlight. Transportation: only in the original packaging, or otherwise adequately protected against any mechanical damage. SikaFiber®-150 should not be exposed to fire. |
| Density | ~0.91 g/cm ³ |
| Length | 50 mm standard size, also available in 40 mm and 65 mm sizes on demand |
| Melting point | ~160 °C |
| Ignition temperature | ~590 °C |
| Fibre volume content | ~73,000 fibres/kg |
| Diameter | ~0.62 mm |

TECHNICAL INFORMATION

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|----------------------------------|---|------------------|-----------------|
| Tensile strength | ~350 MPa (at yield) | | |
| Modulus of elasticity in tension | ~4.4 GPa | | |
| Resistance to alkalinity | Excellent | | |
| Sulfate resistance | Excellent | | |
| Water absorption | Nil | | |
| Flexural toughness | Test | Result | Standard |
| | EFNARC Plate test at 6 kg/m ³ | 700 – 800 Joules | EFNARC |
| | Round Determinate Panel test at 6 kg/m ³ | 280 – 320 Joules | ASTM 1550 |

APPLICATION INFORMATION

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| Recommended dosage | <p>The fibers must be added to the concrete mixer after the water and admixtures and mixed for at least 2–3 minutes to ensure even distribution in the concrete. There may be a slight slump loss after addition of the fibres. Do not add extra water. Adjust the dosage of admixture in the mix to allow the addition of the fibres.</p> <p>Typically, 6 kg of SikaFiber®-150 per m³ of an in-situ 35 MPa sprayed concrete will provide an energy absorption of 700–800 Joules (as per EFNARC Panel Test) or 280–320 Joules (as per ASTM 1550). However, site trials must be carried out to confirm the performance of the fibre and the sprayed concrete as per the project requirements.</p> |
| Dispensing | <p>Concrete should be mixed at least 2–3 minutes after the addition of water and admixtures to obtain a homogeneous mix, then add SikaFiber®-150 to the concrete to ensure even distribution of fibres. There might be slight reduction in slump after addition of the fibres, however do not add extra water to the mix. Admixture dosage shall be adjusted to achieve an optimum mix.</p> |

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

Properties listed in the product data sheet are based on statistical information and it is for guidance only. It should not be considered as a guarantee of performance. Therefore, trial mixes must be performed to establish the exact dosage rate as per the project requirements. Please consult our technical department for further information.

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.

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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ISO 9001, 14001, 45001 – SGS
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Sika Saudi Arabia Limited
ISO 9001, 14001 – TÜV
Sika MB Construction Chemicals LLC
Sika Construction Chemicals
for Manufacturing LLC
ISO 9001 – LMS
Sika MB LLC

All products are supplied under
a management system certified
to conform to the requirements
of the quality, environmental
and occupational health &
safety standards ISO 9001, ISO
14001 and ISO 45001.



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February 2025, Version 01.03
02140800000002022

