

PRODUCT DATA SHEET

SikaFiber® Force PP-48 / RAD-48s

Polyolefin macro-synthetic fibers for shotcrete and concrete

DESCRIPTION

SikaFiber® Force PP-48 / RAD-48s is a macro structural synthetic fiber that delivers optimum performance in highly corrosive environments. It is suited in pre-cast, slabs on ground among many other applications. Higher Re3 values (equivalent flexural strength ratio based on ASTM C1609 testing) are achieved in slabs on grade when using this fiber.

USES

- Fibrecrete/shotcrete
- Ground supported slabs
- Precast elements
- Industrial flooring
- Sea defense
- Airport & pavements
- Slope stabilization

PRODUCT INFORMATION

Composition	Polyolefin Polymer
Packaging	5 Kg boxes- fibers wrapped in water soluble plastic pucks (Parallel Packed) in biodegradable boxes. Entire package can be thrown into the mix allowing for easy handling whilst leaving no waste on site. Environment friendly recycled packaging.
Shelf life	NA
Storage conditions	Store protected from the weather.
Density	0.92 g/cm ³
Dimensions	Fiber length 48 mm Mean Width 1.37 mm Mean Thickness 0.34 mm
Melting point	170°C
Water absorption	Nil

CHARACTERISTICS / ADVANTAGES

- Non-magnetic, rustproof and alkali proof
- Less balling effect in difficult mixes
- No site waste or disposal issues.
- Saves time and storage space in comparison to traditional mesh
- Uniquely designed and packaged allowing it to be evenly dispersed ensuring no balling or pumping problems will occur.

APPROVALS / CERTIFICATES

SikaFiber® Force PP-48 / RAD-48s complies with ASTM C1116 Type III and EN 14889-2: 2006, class 2.

Tensile strength 550+ MPa

Resistance to alkalinity Excellent

APPLICATION INFORMATION

Recommended dosage

4-8 kg/m³

RDPs typical test results

Energy absorption 450+ Joules (as per ASTM C1550, @ 6 kg/m³)

The values are based on ideal FRC mix used in control environment. The performance of the FRC depends on the concrete mix design, properties of the fiber and RDP casting technique as well. Site trials are recommended to confirm the above values.

Compatibility

SikaFiber® Force PP-48 / RAD-48s macro-synthetic fibres are compatible with all concrete admixtures and performance enhancing chemicals.

Dispensing

SikaFiber® Force PP 48 is uniquely designed and packaged allowing it to be evenly dispersed through the matrix, insuring no balling or pumping problems will occur.

Can be added to the mix at any stage during batching.

Allow 5 minutes at mixing speed for fibers to disperse evenly throughout matrix.

BASIS OF PRODUCT DATA

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.

FURTHER INFORMATION

Specification Clause

Fibres for concrete shall be SikaFiber® Force PP 48 polyolefin high performance macro-synthetic fibre conforming to EN 14889-2: 2006 Class 2 and manufactured specifically for the reinforcement of concrete. SikaFiber® Force PP 48 macro-synthetic fibres shall be mixed at the batch plant, at the recommended rate of 4-8 kg per cubic metre, and mixed for sufficient time (minimum 5 minutes) to ensure uniform distribution of the fibres throughout the concrete mix.

IMPORTANT CONSIDERATIONS

The addition of SikaFiber® Force PP 48 can cause a reduction in the concrete workability. We recommend correcting this loss not by adding more water, but by adjusting the mix to the required consistency with a suitable dosage of a Sika® ViscoCrete® or SikaPlast® admixture.

ECOLOGY, HEALTH AND SAFETY

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).

LOCAL RESTRICTIONS

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

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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