

PRODUCT DATA SHEET

SikaFiber®-101 Force

Polypropylene Fibers for Concrete & Shotcrete

DESCRIPTION

SikaFiber®-101 Force is a macro polypropylene fiber primarily used for shotcrete and concrete.

USES

For most types of in-situ cast structural concrete to reduce the amount of steel reinforcement, distribute stresses, increase structural properties or increase abrasion and fire resistance.

- For shotcrete application to replace the steel mesh
- Ground bearing slab etc

CHARACTERISTICS / ADVANTAGES

- Eliminate steel mesh in shotcrete application
- Increase energy absorption
- Provides multi-dimensional reinforcement
- Improves flexural strength
- Enhances durability and toughness of shotcrete
- Reduced explosive spalling of concrete if exposed to fire

APPROVALS / STANDARDS

BSEN 14889-2, class II, Macro fiber & ASTM C 1116-03 Clause 4.1.3

PRODUCT INFORMATION

Fibre type	Macro, inert in nature
Packaging	4 kg bag
Appearance / Colour	Translucent to White fibers
Shelf life	12 months from date of manufacturing, if stored properly in dry covered area, avoid direct sunlight. Protect from rain and fire.
Storage conditions	Store in dry covered area & protect from direct sunlight.
Density	~0.91
Length	50±1 mm
Straightness	Orientation: Embossed, straight
Melting Point	≥160°C
Diameter	Equivalent diameter 0.9±0.05mm
Water absorption	Nil

APPLICATION INFORMATION

Recommended Dosage	Typical dosage of SikaFiber®-101 Force is approximately 4-5kg/M ³ . Dosage has to be finalised as per the site specification requirement and test.
Compatibility	SikaFiber®-101 Force is compatible with all types of cements and cementitious materials. It is compatible with Sika® Products.

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.

IMPORTANT CONSIDERATIONS

SikaFiber®-101 Force does not affect the finishing characteristics of concrete.

Do not add fibers directly into mixing water.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

MIXING

SikaFiber®-101 Force can be added directly to the concrete mixing system during or after the batching of the ingredients and mixed at high speed for four to five minutes. The addition of SikaFiber®-101 Force at the recommended dosage rates to a given mix may decrease the workability, which should be adjusted by use of an appropriate water reducing admixture.

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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