BUILDING TRUST

PRODUCT DATA SHEET

SikaFiber®-12 AE

POLYPROPYLENE FIBRE FOR CONCRETE

DESCRIPTION

SikaFiber®-12 AE is a high quality, 100 % virgin, polypropylene fibre designed to reduce the occurrence of plastic shrinkage and plastic settlement cracking whilst enhancing the surface properties and durability of a cementitious matrix.
SikaFiber®-12 AE is coated with a surfactant to improve initial dispersion and bond with the cement paste.
Suitable for use in hot and tropical climatic conditions.

USES

SikaFiber®-12 AE is used to prevent micro-cracking due to plastic and drying shrinkage in cementitious systems such as:
- Concrete
- Shotcrete
- Cementitious overlays
- Industrial floor slabs
- Patch repairs to pre-cast elements
- Water retaining structures
- High performance concrete
- Precast concrete tunnel segments

FEATURES

- Reduces future repair costs In shotcrete
- Improves the ability to apply greater thicknesses in a single pass
- Reduces rebound
- Enhances early age crack control
- Reduces line pressure in spray pumps
- May reduce the dosage of set accelerator

PRODUCT INFORMATION

Composition	Polypropylene
Packaging	0.6 kg water soluble bags in boxes containing 30 x 0.6 kg (Other size packaging is available on request)
Appearance and colour	White fibres
Shelf life	24 months from date of production if stored properly
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +45 °C. Protect from direct sunlight and frost.
Density	0.91–0.93 kg/l (+25 °C)

Dimensions	Fibre Length	11-13 mm
	Fibre Diameter	35 ±5 µm
Melting point	160–180 °C	

TECHNICAL INFORMATION

Concreting guidance	The standard rules of good concreting practice for production and placing must be observed when using SikaFiber®-12 AE in concrete. Refer to relevant standards. Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage. Use Sika® Antisol® products as a curing agent or apply wet hessian.

APPLICATION INFORMATION

Recommended dosage	~0.6 kg/m³ Other dosages may be used depending on the mix design, raw materials, climatic conditions and concrete requirements. Trial mixes must be performed to establish the exact dosage rate required.
Compatibility	SikaFiber®-12 AE may be combined with all types of Portland cement, concretes containing pozzolanic materials such as; GGBS, PFA , micro-silica and the following Sika products ranges: ▪ Sikament® ▪ Sika® ViscoCrete® ▪ SikaPlast® ▪ Sika Aer® ▪ Plastiment®
Dispensing	Plant mixing: SikaFiber®-12 AE should be added to the mixer after all other ingredients and water. Use a mixing time that ensures uniform dispersion of the fibre. Truck mixing: SikaFiber®-12 AE is best added in the batching plant mixer; although in cases where this may not be possible addition in the truck can be done. The fibre should be added first with ~30 % of the mixing water. Add the other ingredients, the remaining mixing water and continue mixing for a further few minutes at full speed to ensure uniform dispersion of the fibre.

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.

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

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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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.