BUILDING TRUST

PRODUCT DATA SHEET

SikaFiber®-810 Floor

Synthetic macro fibre for concrete

DESCRIPTION

SikaFiber®-810 Floor is a 48 mm long polyolefin macro fibre. It is used in concrete, mainly as a good finishing fibre for slabs on ground or grade

USES

SikaFiber®-810 Floor is used within slabs on ground or grade to control plastic shrinkage cracks and where surface finishing is important.
SikaFiber®-810 Floor is used for:
- Industrial, commercial and residential slabs
- Concrete pavements
- Driveways
- Overlays

FEATURES

- Packaged in dissolving bags
- Easy and light to handle
- Reduces construction time
- Self-fibrillating
- Fibres packed in pucks to reduce balling
- Increases ductility
- Increases toughness
- Increases energy absorption
- Increases strength
- Reduces permeability
- Dissipates stresses and strains
- Reduces structural cracking
- Increases abrasion resistance
- Increases resistance to freeze-thaw attack
- Replaces non-structural steel reinforcement
- Homogeneously embedded
- Fibres fill edges, corners and difficult shapes
- Non-corrosive
- Alkali-resistant

PRODUCT INFORMATION

Composition	Polyolefin
Packaging	Fibre strands formed into pucks and wrapped with soluble film which dissolves in contact with water, packaged in paper bags which dissolve in the mixing process. Refer to the current price list for available packaging variations.
Appearance and colour	Crimped grey fibres
Shelf life	24 months from date of production

Storage conditions	IMPORTANT Protect bags from moisture while in storage. The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C and a relative humidity below 75 %. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.	
Product declaration	Class II: Macro fibres	(EN 14889-2)
	Type III synthetic fiber reinforced concrete	(ASTM C1116)
Dimensions	Diameter	0.77 mm
	Length	48 mm
Melting point	+164 °C	

TECHNICAL INFORMATION

Tensile strength	480 N/mm² (MPa)	(EN 14889-2)
	510 N/mm² (MPa)	(ASTM D7508)
Modulus of elasticity in tension	6.0 kN/mm² (GPa)	(EN 14889-2)
	9.0 kN/mm² (GPa)	(ASTM D7508)

APPLICATION INFORMATION

Recommended dosage	2–5 kg/m³
Compatibility	Compatible with Sika® concrete admixtures

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

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.

APPLICATION INSTRUCTIONS

MIXING

Concreting guidance

1. Follow the standard rules of good concreting practice, concerning production as well as placing.
2. Carry out laboratory trials before concreting on site, especially when using a new mix design or producing new concrete components.
3. Carry out trials to confirm the flowability and workability of the concrete.
4. Cure fresh concrete properly and apply curing as early as possible, especially at low temperatures.

SikaFiber®-810 Floor can be mixed using the following techniques:

- Pan mixers in the concrete production plant with a recommended dosage of 2–5 kg/m³.
- Rear discharge truck mixers at the concrete production plant or on job site with a recommended dosage of 2–3 kg/m³.
  Note: Not suitable for front loaded concrete mixing trucks.

Follow the general notes:

- The Product will not improve the quality of poor concrete.
- Do not add the Product directly into the mixing water.
- Dispose of unused, empty bags in paper recycling. They can disintegrate in water when agitated.
  Note: If the mix design has a low w/b-ratio the mixing time may need to be extended.

PAN MIXER: WITH MIXED CONCRETE

1. Mix the concrete.
2. Add the fibres to the mixed concrete.
3. While the pan mixer is mixing, slowly add the loose pucks.
   Note: Do not add them in bags.
4. Mix until all the pucks have dispersed and the concrete is homogeneous.
5. Just before the application, mix again the concrete in the truck mixer for 3 minutes at full revolutions.

PAN MIXER: WITH DRY COMPONENTS

1. Add dry components.
2. In the weight hopper, add the pucks with the aggregates.
3. On the aggregate belt, add the pucks or bags and distribute their content evenly.
   Note: Do not stack the bags.
4. Mix until all the pucks have dispersed and the concrete is homogeneous.
5. Just before the application, mix again the concrete in the truck mixer for 3 minutes at full revolutions.

TRUCK MIXER: WITH MIXED CONCRETE

IMPORTANT

Not suitable for small truck mixers or concrete volumes less than 4 m³ without adequate prior pre-testing.

1. Revolve the drum at maximum revolutions per minute.
2. Add one bag at a time after 1 full mixing revolution.
   Note: Do not add more than one bag between two blades.
3. Add fibres to mixed concrete with a slump of approximately 120 mm according to EN 12350-2:2009 – Testing fresh concrete - Part 2: Slump-test. Refer to the SikaFiber-810 Floor - Truck Batching Recommendations recommendation.
4. Mix the concrete at full revolutions for minimum 1 extra minute for every 1 m³ of concrete in the mixer or mix until all the pucks have dispersed and the concrete is homogeneous.
5. Just before the application, mix again the concrete in the truck mixer for 3 minutes at full revolutions.

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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