BUILDING TRUST

PRODUCT DATA SHEET

SikaFiber®

Monofilament polypropylene fibre for concrete and mortar

DESCRIPTION

SikaFiber® is based on high quality monofilament micro polypropylene fibres. It is designed to minimize and control plastic shrinkage cracks by increasing the strain capacity of fresh concrete. SikaFiber® is available in premeasured, ready in use degradable bags for 1m³ of concrete.

USES

SikaFiber® is used in the following applications in fresh (green) concrete to reduce the incidence of shrinkage cracking.

- Pavements
- Precast concrete products
- Industrial floors, slabs
- Wet and dry system sprayed concrete production
- Airport apron and car park slabs
- Concrete which is subjected to impact load
- Screeds and plasters etc.

CHARACTERISTICS / ADVANTAGES

Due to their fineness and special surface treatment, SikaFiber® can be easily dispersed in the concrete or mortar and create a dense matrix that leads to:

- Improved cohesiveness of the fresh concrete
- Reduced plastic shrinkage cracks
- Reduced bleeding
- Increased abrasion properties
- Improved freezing and thawing resistance
- When used in shotcrete, it reduces rebound waste
- Increased resistance to impact loads
- Reduced concrete permeability
- Resistance to slab curling
- Improved fire damage properties

PRODUCT INFORMATION

Composition	100% Polypropylene Fibres
Packaging	Soluble 1 kg bags (20 bags per box)
Appearance and colour	White
Shelf life	Product can be stored for indefinite period in a dry environment.
Storage conditions	Store in original, unopened, sealed and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C.
Density	0.91 g/cm³
Dimensions	Length 12 mm Nominal diameter 18 micron
Melting point	160°C
Ignition temperature	Above 350°C

TECHNICAL INFORMATION

Water absorption	Nil
Concreting guidance	The standard rules of good concreting practice, concerning production as well as placing, are to be followed. Refer to relevant standards. Fresh concrete must be cured properly.
Specific advice	Thermal Conductivity: Low Electrical Conductivity: Low
Tensile strength	300-400 N/mm²
Modulus of elasticity in tension	~ 4000 N/mm²
Resistance to alkalinity	High

APPLICATION INFORMATION

Recommended dosage	SikaFiber® shall be added at minimum dose rate of 1.0 kg (1 bag) per cubic metre of concrete.
Dispensing	SikaFiber® should be ideally added at the batching plant. In case of site mixing, additional mixing time of 3 to 5 minutes (70 cycles) is necessary to ensure the uniform fibre dispersion throughout the mix. If mixing is at the batching plant, fibre should be added first along with half of the mixing water. After all the other ingredients have been added, including the remaining mixing water the concrete or mortar should be mixed for a further 3 minutes at full speed to ensure uniform fibre dispersion.

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

- The addition of SikaFiber® to a concrete mix is no substitute for proper curing practices.
- SikaFiber® is not a structural fibre and therefore should not be used as a substitute for structural steel or steel fibres in structural applications.
- Proper reinforcement and joint spacing should be observed.
- Concrete fibres in general can exhibit lower slumps and the use of a water reducers such as SikaPlast® or ViscoCrete® is recommended.

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