

PRODUCT DATA SHEET

SikaFiber®-820 Stealth TW

Macro synthetic fibre

PRODUCT DESCRIPTION

SikaFiber®-820 Stealth TW is 100 % virgin copolymer twisted and crimped macro synthetic fibre designed to provide a uniform three-dimensional reinforcement system for durable concrete with an excellent finish. Specifically engineered and manufactured in a Sika ISO 9001 certified manufacturing facility.

WHERE TO USE

SikaFiber®-820 Stealth TW can be successfully used as a safe and simple alternative to wire mesh and rebar in the following, but not limited to, concrete applications:

- All types of slab-on-ground
- Extending joints
- Composite metal deck
- Pavements
- Overlays
- Bridge decks
- Slipform
- Sidewalks
- Mass concrete
- Precast concrete

CHARACTERISTICS / ADVANTAGES

- Packaged in small twisted bundles, in degradable bags that are easy to use during mixing
- Engineered self-fibrillating macro fibre creating a high fibre network in the concrete matrix and designed to create an outstanding finish and performance in a hard troweled slab-on-ground (applicable, but not limited to, for designs by ACI 332, ACI 360, and ACI 544)
- Cost-effective, three-dimensional reinforcement that can replace or reduce wire mesh or rebar, and steel fibres

- Reduced embodied carbon through the replacement of conventional steel reinforcement with synthetic structural fibres
- Increased safety on job site; remove lifting of reinforcement, bending, and tripping hazard
- Reduction in construction time. No cutting, placing, tying, and chairing of the steel is required
- Pumpable reinforcement with reduced wear on pumps and hoses compared to steel fibres
- Reduced permeability
- Increased ductility, flexural toughness and post first crack of concrete
- Increased durability due to high chemical resistance and corrosion-free
- Reduction of plastic shrinkage and settlement cracking
- Improved impact, shatter, and abrasion resistance of the concrete

ENVIRONMENTAL INFORMATION

Lowers carbon footprint through the removal of rebar or wire mesh reinforcing which has a higher GWP.

APPROVALS / CERTIFICATES

- ASTM C1116/C1116M Type III Fiber Reinforced Concrete and ASTM D7508/D7508M compliance
- UL/ULC certified and approved for use in all 0700, 0800 and 0900 series decks as an alternate to welded wire fabric
- ANSI/SDI C-2017 compliance

PRODUCT INFORMATION

Composition / Manufacturing	Polyolefin
Fibre Type	Twisted, self-fibrillating, and crimped monofilament macro synthetic fibre
Packaging	0.90 kg (2 lb) and 1.36 kg (3 lb) toss-in degradable bags. Bags are packed into cartons and palletized. For the 0.90 kg packaging: 10 bags/box, 27 boxes/pallet for a total weight of 245 kg (540 lb)/pallet.
Appearance / Colour	Twisted and crimped / Grey
Shelf Life	5 years when stored per conditions below.
Storage Conditions	Store in original packaging in dry warehouse conditions at temperatures between 5 °C and 27 °C (40 °F and 80 °F). Protect from rain and direct sunlight.
Density	0.91
Length	Twisted length 38 mm (1.5 in)
Melting Point	162 °C (324 °F)
Fibre Volume Content	Approximately 338 406 fibres per kilogram after mixing in concrete

TECHNICAL INFORMATION

Resistance to Alkalinity	High
--------------------------	------

APPLICATION INFORMATION

Recommended Dosage	The standard recommended dosage rate of SikaFiber®-820 Stealth TW is between 1.8–4.45 kg/m³ (3–7.5 lb/yd³) of concrete. Notes: Dosages outside the recommended dosage range can be used to meet project specific requirements. If this is the case, contact your Sika Canada Technical Representative for technical support. The dosage of the SikaFiber®-820 Stealth TW may vary according to the type of application and the performance requirements of the project.
Mixing	Guidelines for typical use of SikaFiber®-820 Stealth TW Adjust slump prior to batching SikaFiber®-820 Stealth TW. The fibres will affect the apparent slump of the concrete mix. When starting with a slump of 125 to 200 mm the fibres may have the following effects: ▪ 1.8 kg/m³ (3 lb/yd³) will produce approx. 25 mm of apparent slump loss ▪ 4.2 kg/m³ (7 lb/yd³) will produce approx. 75 mm of apparent slump loss Mixing ▪ Plant Mixer: Place bags as last item in the mix on aggregate belt or feed into truck. Do not place the bags on top of each other. ▪ Truck Mixer: Add bags as the last item in the mix. Add one (1) unopened degradable bag at a time. Not more than one (1) bag should be between 2 fins in the truck mixer. Mixing time with the added fibres is five (5) minutes at 15 rpm.

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

ENVIRONMENT, HEALTH & 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.

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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

Sika Canada Inc.

Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9
1-800-933-SIKA
www.sika.ca

Other locations

Boisbriand (Quebec)
Brantford; Cambridge;
Sudbury; Toronto (Ontario)
Edmonton (Alberta)
Surrey (British Columbia)

Product Data Sheet

SikaFiber®-820 Stealth TW
November 2025, Version 02.01
021408021000000148

SikaFiber-820StealthTW-en-CA-(11-2025)-2-1.pdf

