

BUILDING TRUST

PRODUCT DATA SHEET

SikaFiber®-820 Stealth TW

MACRO SYNTHETIC FIBER

PRODUCT DESCRIPTION

SikaFiber®-820 Stealth TW is 100% virgin copolymer twisted and crimped macro synthetic fiber 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.

USES

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

- · Residential, commercial and industrial slabs
- Extending joints
- Slabs on composite metal deck systems
- Heavy-duty concrete pavements
- Overlays
- Bridge decks
- Slipform
- Sidewalks
- Mass concrete
- Precast concrete

CHARACTERISTICS / ADVANTAGES

SikaFiber®-820 Stealth TW is provided in small, twisted bundles, in easy to batch toss-in degradable bags. The engineered self-fibrillating macro fiber creates a high fiber network in the concrete matrix and is designed to create an outstanding finish and performance in a hard troweled slab-on-ground. Applicable, but not limited to, designs by ACI 332, ACI 360, and ACI 544.

SikaFiber®-820 Stealth TW also provides:

- Cost-effective, three-dimensional reinforcement that can replace or reduce wire mesh, rebar, and steel fiber,
- Reduced embodied carbon by replacing conventional steel reinforcement with synthetic fiber reinforcement,
- Increased safety on job site; remove lifting of reinforcement, bending, and tripping hazard,
- Reduced 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 fibers,
- Reduced permeability,
- Increased ductility, flexural toughness and post first crack.
- Increased durability due to high chemical resistance and corrosion free,
- Reduced plastic shrinkage and settlement cracking,
- Improved impact, shatter, and abrasion resistance.

ENVIRONMENTAL INFORMATION

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

For further information, please visit: https://usa.sika.com/en/sustainability.html

APPROVALS / STANDARDS

- SikaFiber®-820 Stealth TW complies with ASTM C1116/C1116M Type III Fiber Reinforced Concrete and ASTM D7508/D7508M
- UL/ULC certified and approved for use in all 0700, 0800 and 0900 series decks as an alternate to welded wire fabric.
- Complies to ANSI/SDI C-2017

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PRODUCT INFORMATION

Chemical Base	Polyolefin
Fiber Type	Twisted, self-fibrillating, and crimped monofilament macro synthetic fiber
Packaging	SikaFiber®-820 Stealth TW is available in 2.0 pound toss-in degradable bags. The bags are packed into cartons and palletized.
Appearance / Color	Grey, twisted and crimped
Shelf Life	5 years when stored per conditions below.
Storage Conditions	SikaFiber®-820 Stealth TW should be stored in original packaging in dry warehouse conditions between 40°F and 80°F (5-27°C). Protect from rain and direct sunlight.
Density	0.91
Length	Twisted length 1.5" (38mm)
Melting Point	324°F (162°C)
Fiber Volume Content	Approximately 153,500 fibers per pound after mixing in concrete
TECHNICAL INFORMATION	
Tensile Strength	600 MPa
Resistance to Alkalinity	High
APPLICATION INFORMATION	
Recommended Dosage	The dosage of the SikaFiber®-820 Stealth TW will vary according to the type of application and the performance requirements of the project. The standard recommended dosage rate of SikaFiber®-820 Stealth TW is between 3-7.5 lbs/cu. yd. (1.8-4.45 kg/m3) of concrete. Dosages outside the recommended dosage range can be used to meet project specific requirements. If this is the case, please contact your SikaFiber representative for technical support.
Mixing	The guideline for the typical use of SikaFiber®-820 Stealth TW:
	 Step 1: Adjust slump prior to addition of SikaFiber®-820 Stealth TW. The fibers will affect the apparent slump of the concrete mix. When starting with a slump of 5 to 8 inches the fibers may have the following effects: 3 lbs/cu. yd. will produce approximately 1-1.5 inch of apparent slump loss. 7 lbs/cu. yd. will produce approximately 3 inches of apparent slump loss.
	 Step 2: Plant Mixer: Place bags as last item in the mix on aggregate belt or feed into truck. Do NOT place the bags in the mixer all at one time, or on top of each other. Truck Mixer: Add as the last item in the mix.
	Step 3: Add one unopened degradable bag at a time per drum revolution. Do not cut or open the paper bags as they are water soluble.
	Step 4: Mix time with the fiber is 5 minutes at 14 RPM.

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BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

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