

## SikaFiber® Force 850

### Steel Synthetic Fiber Blend

<b>Description</b>	SikaFiber® Force 850 is a blend of low carbon drawn wire steel fibers ASTM A-820 Type V and micro-synthetic polypropylene fibers conforming to ASTM C-1116 Type III. The combination of the two fiber types provides a complete reinforcement system from plastic shrinkage cracking reinforcement to post-first crack toughness reinforcement, which translates into a more durable concrete with higher life expectancy.																								
<b>Applications</b>	SikaFiber® Force 850 reinforces the concrete with a multi-dimensional fiber network. SikaFiber® Force 850 can be used in most types of concrete. Its primary applications include industrial and warehouse floor slabs, precast elements like septic tanks, burial vaults, utility vaults etc. SikaFiber® Force 850 can also be used on elevated decks where composite steel decking is used, parking areas, service ramps, ingress and egress roadways, water diversion channels and slope stabilization.																								
<b>Benefits</b>	<ul style="list-style-type: none"><li>■ Provides temperature-shrinkage cracking reinforcement.</li><li>■ Improves post-first crack reinforcement.</li><li>■ Improves impact, shatter and abrasion resistance of concrete.</li><li>■ Provides multi-dimensional reinforcement.</li><li>■ Improves tensile and flexural strength.</li><li>■ Enhances durability, improves fatigue strength and toughness of concrete.</li></ul>																								
<b>Typical Data</b>	<table><tr><td colspan="2"><b>Steel Fiber</b></td></tr><tr><td><b>Fiber Type:</b></td><td>ASTM A820, Type V</td></tr><tr><td><b>Fiber length:</b></td><td>1.5"</td></tr><tr><td><b>Specific Gravity:</b></td><td>7.85</td></tr><tr><td><b>Tensile strength:</b></td><td>140 ksi</td></tr><tr><td><b>Diameter:</b></td><td>0.47" (1.2 mm)</td></tr><tr><td colspan="2"><b>Polypropylene Fiber</b></td></tr><tr><td><b>Fiber Type:</b></td><td>Monofilament Polypropylene ASTM C1116, Type III</td></tr><tr><td><b>Fiber length:</b></td><td>0.5' and 0.75'</td></tr><tr><td><b>Specific Gravity:</b></td><td>0.91</td></tr><tr><td><b>Tensile strength:</b></td><td>40-60 ksi</td></tr><tr><td><b>Diameter:</b></td><td>10-15 denier</td></tr></table> <p>RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.</p>	<b>Steel Fiber</b>		<b>Fiber Type:</b>	ASTM A820, Type V	<b>Fiber length:</b>	1.5"	<b>Specific Gravity:</b>	7.85	<b>Tensile strength:</b>	140 ksi	<b>Diameter:</b>	0.47" (1.2 mm)	<b>Polypropylene Fiber</b>		<b>Fiber Type:</b>	Monofilament Polypropylene ASTM C1116, Type III	<b>Fiber length:</b>	0.5' and 0.75'	<b>Specific Gravity:</b>	0.91	<b>Tensile strength:</b>	40-60 ksi	<b>Diameter:</b>	10-15 denier
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Concrete



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## How to Use

<b>Dosage</b>	Minimum recommended dosage rate of SikaFiber® Force 850 is 1 bag (24 lbs) per cubic yard of concrete or as required by specific mix design. The 24 lb bag includes 23 lbs of Type V steel fiber and 1 lb of micro-synthetic polypropylene fiber.
<b>Mixing</b>	SikaFiber® Force 850 can be added directly to the concrete mixing system during or after the batching of the ingredients and mixed at high speed for four to five minutes. Additional mixing does not adversely affect the distribution or overall performance of SikaFiber® Force 850. The addition of SikaFiber® Force 850 at the recommended dosage rates to a given mix will decrease the slump; however, additional water should not be added. Only a water reducing admixture should be used to adjust concrete to the desired workability required for placement.
<b>Application</b>	The addition of SikaFiber® Force 850 at the normal recommended dosage rate does not require any mix design or application changes. A mid range or high range water reducer is recommended in concrete placements where improved workability and finishability are desired.
<b>Tooling &amp; Finishing</b>	The addition of SikaFiber® Force 850 at the normal recommended dosage rate does not require any mix design or application changes. A mid range or high range water reducer is recommended in concrete placements where improved workability and finishability are desired.
<b>Packaging</b>	SikaFiber® Force 850 is available in 24 lb degradable bags.
<b>Storage and Shelf Life</b>	Sika Fiber® Force 850 should be stored in dry warehouse. Protect product from the rain.  If stored in dry conditions shelf life is 1 year.

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

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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 shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

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**Sika Corporation**  
201 Polito Avenue  
Lyndhurst, NJ 07071  
Phone: (201) 933-8800  
Fax: (201) 933-6225  
[usa.sika.com](http://usa.sika.com)

**Sika Canada Inc.**  
601, Delmar Avenue  
Pointe-Claire, QC H9R 4A9  
Phone: (514) 697-2610  
Fax: (514) 697-3087  
[can.sika.com](http://can.sika.com)

**Regional Information and Sales Centers.** For the location of your nearest Sika representative, contact your regional center.

**U.S. :**  
**Northeast:** Fairless Hills, PA, Phone: (215) 295-6600  
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**North Central:** Ottawa, IL 61350, Phone: (815) 431-1080  
**South Central:** Mesquite, TX, Phone: (972) 289-6480

**Canada:** **Ontario:** Mississauga, ON, Phone: (905) 795-3177

**Alberta:** Edmonton, AB, Phone: (780) 486-6111

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