**SikaFiber® Force 850**

**Steel Synthetic Fiber Blend**

**Description**
SikaFiber® Force 850 is a blend of low carbon drawn wire steel fibers ASTM A-820 Type V and micro-synthetic polypropylene fibers confirming 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.

**Applications**
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.

**Benefits**
- Provides temperature-shrinkage cracking reinforcement.
- Improves post-first crack reinforcement.
- Improves impact, shatter and abrasion resistance of concrete.
- Provides multi-dimensional reinforcement.
- Improves tensile and flexural strength.
- Enhances durability, improves fatigue strength and toughness of concrete.

**Typical Data**

**Steel Fiber**
- Fiber Type: ASTM A820, Type V
- Fiber length: 1.5”
- Specific Gravity: 7.85
- Tensile strength: 140 ksi
- Diameter: 0.47” (1.2 mm)

**Polypropylene Fiber**
- Fiber Type: Monofilament Polypropylene ASTM C1116, Type III
- Fiber length: 0.5’ and 0.75’
- Specific Gravity: 0.91
- Tensile strength: 40-60 ksi
- Diameter: 10-15 denier

*RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.*

**Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product’s most current product data sheet, product label and safety data sheet which are available online at HTTP://USA.SIKA.COM/ or by calling Sika’s technical service department at 800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current product data sheet, product label and safety data sheet prior to product use.*
How to Use

Dosage
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.

Mixing
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.

Application
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.

Tooling & Finishing
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.

Packaging
SikaFiber® Force 850 is available in 24 lb degradable bags.

Storage and Shelf Life
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.