

# SikaFiber® Force CS-1000

## Steel Fiber

**Description** SikaFiber® Force CS-1000 is a low carbon cut sheet steel fiber with a shape that provides a high mechanical bond to the concrete matrix. SikaFiber® Force CS-1000 meets the requirements of ASTM A820 as a Type II Fiber with an aspect ratio between 40-50.

**Applications** SikaFiber® Force CS-1000 can be used in various concrete applications:

- Industrial slabs
- Pavements
- Foundations
- Blast resistant structures and other structural concrete

**Benefits**

- Increases crack resistance, ductility, energy absorption or toughness of concrete.
- Improves impact resistance, fatigue endurance and shear strength of concrete.
- Helps control plastic shrinkage cracking in concrete.
- Helps reduce or eliminate the conventional reinforcement.
- Provides three dimensional reinforcement.
- Easy to use and work with.

**Typical Data**

<b>Material:</b>	Low carbon cut sheet steel
<b>Fiber length:</b>	1" (25 mm)
<b>Average thickness:</b>	0.55 - 0.65 mm
<b>Specific gravity:</b>	7.85
<b>Diameter:</b>	0.039" (1 mm)
<b>Aspect ratio:</b>	40 - 50
<b>Tensile Strength:</b>	50-100 ksi
<b>Melting point:</b>	2760°F

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

Concrete



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**How to Use****Dosage**

The dosage of SikaFiber® Force CS-1000 will vary according to the type of application, concrete mix design, and the performance/toughness requirements of project. The typical addition rate of SikaFiber® Force CS-1000 is between 20-75 lbs per cu.yd of concrete. Dosage outside the recommended range can be used to meet specific project requirements.

**Mixing**

**Adding SikaFiber® Force CS-1000 into the weight hopper:** Add SikaFiber® Force CS-1000 directly into the hopper. When possible the fiber should be added between the sand and coarse aggregate.

**Adding SikaFiber® Force CS-1000 into the mixer:** SikaFiber® Force CS-1000 should be added into the running mixer after adding the aggregates. Do not place SikaFiber® Force CS-1000 as first component. Fibers can be introduced to the moving conveyor belt or by automated dosing system together with sand and aggregate or directly in freshly mixed concrete.

**Adding SikaFiber® Force CS-1000 into the ready mix truck:** Introduce SikaFiber® Force CS-1000 by hand or automated system with sand or stone or directly into running mixing drum. Fibers can be also discharged in freshly mixed concrete. After fiber introduction keep mixing at full speed. Mix for 4-5 minutes to allow fibers to distribute evenly through the entire mix. Add 1/2-1 minute if fiber distribution in concrete is not uniform.

**Packaging**

SikaFiber® Force 1050 is available in 55 lbs (25 kg) boxes.

**Storage**

SikaFiber® Force 1050 should be stored in dry warehouse. Protect product from the rain and snow. Do not stock pallets on top of each other.

**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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Quality Certification Numbers: Lyndhurst: FM 69711 (ISO 9000), FM 70421 (QS 9000), Marion: FM 69715, Kansas City: FM 69107, Santa Fe Springs: FM 69408



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