

# SikaFiber® Force 1050

## Steel Fiber

**Description** SikaFiber® Force 1050 is a cold drawn wire steel fiber, deformed with hooked end (HE) or flat ends (FE), designed to produce steel fiber reinforced concrete. SikaFiber® Force 1050 meets the requirements of ASTM A820 as a Type I Fiber.

SikaFiber® Force 1050 is UL classified for use as an alternate or in addition to the welded wire fabric used in Floor-Ceiling D700, D800, D900 Series Designs. Fibers may also be used in Design Nos. G256, G514.

**Applications** SikaFiber® Force 1050 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 need for conventional reinforcement
  - Provides three dimensional reinforcement
  - Easy to use and work with

**Typical Data**

<b>Fiber length:</b>	2" (50 mm)
<b>Diameter:</b>	0.039" (1 mm)
<b>Aspect ratio:</b>	50
<b>Tensile Strength:</b>	152,000 psi (1050 MPa)
<b>Deformation:</b>	Hooked end (HE) or Flat end (FE)

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 1050 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 1050 is between 25-75 lbs per cu.yd of concrete. Dosage outside the recommended range can be used to meet specific project requirements.

### Mixing

**Adding SikaFiber® Force 1050 into the weight hopper:** Add SikaFiber® Force 1050 directly into the hopper. When possible the fiber should be added between the sand and coarse aggregate.

**Adding SikaFiber® Force 1050 into the mixer:** SikaFiber® Force 1050 should be added into the running mixer after adding the aggregates. Do not place SikaFiber® Force 1050 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 1050 into the ready mix truck:** Introduce SikaFiber® Force 1050 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 lb (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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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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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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