



# PREMIX FC 1050 Steel Fibers



## PREMIX-FC 1050 STEEL FIBER

PREMIX-FC1050, steel fibers are designed specifically for the reinforcement of concrete, mortars and other cementitious mixes. PREMIX-FC1050 is a leading general purpose low carbon, cold drawn segment wire fiber that is continuously deformed and flat to provide optimum performance within the concrete mix.

## FEATURES & BENEFITS

- Provides uniform multi-directional concrete reinforcement
- Increases crack resistance, ductility, energy absorption or toughness of concrete
- Improves impact resistance, fatigue endurance and shear strength of concrete
- High tensile strength fibre bridging joints and cracks to provide tighter aggregate interlock resulting in increased load carrying capacity
- Requires less labour to incorporate into concrete than conventional reinforcement
- Offers economical concrete reinforcement solutions with greater project scheduling accuracy
- Ideally suited for hand or vibratory screeds, laser screeds and all conventional finishing equipment.

## PRIMARY APPLICATIONS

- Ground Supported Slabs
- External Roads & Pavements
- Precast Concrete
- Blast-resistant Concrete
- Concrete Overlays

## COMPLIANCE

Conforms to ASTM A 820/A 820 M-04, Type V cold drawn segment wire.

## NOMINAL PHYSICAL PROPERTIES

Fiber Length	50 mm
Equivalent Diameter	0.85 to 1.2 mm
Tensile Strength	800N/mm <sup>2</sup> minimum
Deformation	Continuously deformed
Appearance	Bright flat wire



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## PRODUCT USE

### MIXING DESIGNS AND PROCEDURES:

PREMIX-FC1050, Steel fibers can be added during or after the batching of the concrete but should never be added as the first component. Such devices as convey or belts, chutes and dispensers may be used to add fibers to the mixer at the ready mix plant. After the fibers have been added, the concrete should be mixed for sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of the fibers throughout the concrete. The use of mid or high-range water reducing admixtures can be advantageous, but is not essential.

### PLACING

PREMIX-FC1050, steel fibers can be pumped and placed using conventional equipment. Hand or vibratory screeds and laser screed scan be used with PREMIX-FC1050 steel fibers.

### FINISHING:

Conventional finishing techniques and equipment can be used when finishing PREMIX-FC1050 steel fiber concrete.

In some cases an extra bull float process is advised and lowering the angle of the power float blades will help to minimize fiber exposure on the surface.

## DOSAGE RATE:

The fiber dosage will vary depending on the type of application, concrete mix design and the performance / toughness requirements of each particular project. Typically, steel fiber dosage will be in the range of 15 kg to 25 kg per cubic meter.

PREMIX technical staff can offer advise on dosage requirements once performance requirements have been established by the project designer / engineer.

## COMPATIBILITY

PREMIX-FC1050 steel fibers are compatible with all curing compounds, super plasticizers, water reducers, hardeners and coatings.

## SAFETY

It is recommended that gloves and eye protection be used when handling or adding PREMIX-FC1050 steel fibers to concrete.

## PACKAGING

PREMIX-FC1050 fibers are available, as standard, in 25kg packaging. They are also available upon request in different weight bags. The bags should be protected against rain and snow.

## TECHNICAL SERVICES

PREMIX SFRC Systems is backed by our team of concrete reinforcement specialists who can carefully analyze each project and provide fiber reinforced concrete design solutions to ensure maximum project performance and cost efficiency.