



# PSI CRIMPED STEEL FIBER FB

STEEL MACROFIBER WITH FIBRILLATED SYNTHETIC MICROFIBER BLEND **EUCLID CHEMICAL**

## PRODUCT INFORMATION

### PACKAGING

24 lb (10.9 kg) bags;  
1728 lbs (784 kg) per pallet

### SHELF LIFE

3 years in original, unopened package

### SPECIFICATIONS/COMPLIANCES

ASTM C1116  
ASTM A820, Type IV  
ASTM D7508

### TECHNICAL INFORMATION

**Material:** Low carbon cold drawn steel wire/100% virgin polypropylene multi-length fibrillated fiber

#### Typical Dosage Rate:

24 - 96 lb/yd<sup>3</sup> (14 - 57 kg/m<sup>3</sup>)

#### Available Lengths:

Steel Fiber - 1 ½" (38 mm)  
Synthetic Fiber - blend of ½" & ¾" (13 & 19 mm)

#### Aspect Ratio:

Steel Fiber - 34  
Synthetic Microfiber - N/A\*

#### Tensile Strength:

140 - 180 ksi (966 - 1242 MPa)

**Color:** Bright, clean wire with white synthetic fiber

\* Tensile strength and aspect ratio are not applicable for micro fibers based on ASTM D7508.

## DESCRIPTION

PSI CRIMPED STEEL FIBER FB are low carbon, cold drawn steel wire fibers combined with 100% virgin multi-length fibrillated polypropylene synthetic microfibers designed to provide concrete with plastic shrinkage crack protection, temperature and shrinkage crack control, enhanced flexural reinforcement, improved shear strength and increase the crack resistance of concrete. PSI Crimped Steel Fiber FB complies with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete and ASTM A820, Standard Specification for Steel Fibers for Fiber Reinforced Concrete. This steel macrofiber blend will also improve impact, shatter, fatigue and abrasion resistance while increasing toughness of concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 24 to 96 lbs/yd<sup>3</sup> (14 to 57 kg/m<sup>3</sup>).

## PRODUCT CHARACTERISTICS

### FEATURES & BENEFITS

- Increases impact, shatter and abrasion resistance of concrete
- Reduces segregation, plastic settlement, and shrinkage cracking of concrete
- Provides three-dimensional reinforcement against macro-cracking
- Increases overall durability, fatigue resistance and flexural toughness
- Reduction of in-place cost versus wire mesh
- Easily added to concrete mixture at any time prior to placement

### PRIMARY APPLICATIONS

- Commercial and industrial slabs on ground
- Bridge decks, overlays and pavements
- Precast concrete applications
- Shotcrete, tunnel linings and slope stabilization
- Mass concrete and composite deck construction

## PRECAUTIONS/LIMITATIONS

- Use of fibers may cause an apparent loss in measured slump of concrete. This may be offset with the use of a water reducing admixture if necessary.
- Fibers should never be added to a "zero-slump" concrete. Ensure a minimum concrete slump of 3" (80 mm) prior to addition of any fiber material. Fibers may also be added in loose form to aggregate charging devices.
- In all cases, consult the Safety Data Sheet before use.

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## DIRECTIONS FOR USE

PSI Crimped Steel Fiber FB can be added to the concrete mixture at any time prior to placement of the concrete. It is generally recommended to add any fiber material at the ready-mix concrete plant during batching. Fibers must be mixed with concrete for a minimum of four (4) to five (5) minutes at maximum mixing speed, depending on the mixer type, to ensure complete dispersion and uniformity. The addition of PSI Crimped Steel Fiber FB, at provided dosage rates, will decrease the measured slump of concrete; however, additional water should not be added. The use of water reducers and/or superplasticizers, such as the Eucon series or the Plastol series of admixtures may be necessary to maintain desired workability.

Add other admixtures independently from fiber addition. When used properly, and placed in a concrete mix of sufficient workability, the fibers will not adversely alter the compressive or flexural strength of concrete or shotcrete.

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## CLEAN UP

Loose fiber material should be disposed in proper receptacles for refuse. Finishing equipment with fibers embedded in concrete should be thoroughly cleaned.

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