



PSI CRIMPED STEEL FIBER

STEEL MACROFIBER

PRODUCT INFORMATION

PACKAGING

55 lb (25 kg) bags;
2200 lbs (1000 kg) per pallet

SHELF LIFE

3 years in original, unopened package

SPECIFICATIONS/COMPLIANCES

ASTM C1116
ASTM A820, Type IV

TECHNICAL INFORMATION

Material: Low carbon cold drawn steel wire

Deformation: Continuously deformed circular segment

Typical Dosage Rate:
25 - 100 lb/yd³ (15 - 60 kg/m³)

Available Lengths:
1 ½" (38 mm), 2" (50 mm)

Aspect Ratio:
34 (for 38 mm length)
45 (for 50 mm length)

Tensile Strength:
140 - 180 ksi (966 - 1242 MPa)

Color: Bright, clean wire

DESCRIPTION

PSI Crimped Steel Fibers are low carbon, cold drawn steel fibers designed to provide concrete with temperature and shrinkage crack control, enhanced flexural reinforcement, improved shear strength and increase the crack resistance of concrete. PSI Crimped Steel Fiber complies with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete and ASTM A820, Type I, Standard Specification for Steel Fibers for Fiber Reinforced Concrete. These steel macro-fibers 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 25 to 100 lbs/yd³ (15 to 60 kg/m³).

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 for temperature / shrinkage crack control
- 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.

DIRECTIONS FOR USE

PSI Crimped Steel fibers 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, 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.

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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