PSI STEEL FIBER C6560
STEEL MACRO-FIBER

DESCRIPTION

PSI STEEL FIBER C6560 is a low carbon, cold drawn and hooked-end steel wire fiber designed to provide concrete with temperature and shrinkage crack control, enhanced flexural reinforcement, improved shear strength and increase the crack resistance of concrete. PSI STEEL FIBER C6560 complies with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete and ASTM A820, Type I fiber, 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 20 to 100 lbs/yd³ (12 to 60 kg/m³) or higher.

PRIMARY APPLICATIONS

- Commercial and industrial slabs on ground and slabs on pile
- Bridge decks, overlays and pavements
- Structural and non-structural precast concrete applications
- Shotcrete, tunnel linings and slope stabilization
- Mass concrete and composite deck construction

FEATURES/BENEFITS

- Increases impact, shatter and abrasion resistance of concrete
- Controls and mitigates plastic shrinkage cracking and reduces segregation and bleed-water
- 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
- Tested in accordance with ASTM C 1399, C 1550, and C 1609

TECHNICAL INFORMATION

Typical Engineering Data
Material: low carbon cold drawn steel wire
Deformation: hooked-end
Typical Dosage Rates: 20 - 100 lb/yd³ (12 - 60 kg/m³) or higher
Available Lengths: 2½” (60 mm)
Aspect Ratio: 65
Tensile Strength: >160 ksi (>1100 MPa)
Appearance: bright, clean wire

PACKAGING

PSI STEEL FIBERS C6560 is collated and packaged in 44 lb (20 kg) bags; 2640 net lbs (1200 kg) per pallet.

SHELF LIFE

3 years in original, unopened package.
**Directions for Use**

PSI STEEL FIBER C6560 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. The actual dosage rate will vary depending upon the application and performance requirements for each project. 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 STEEL FIBER C6560 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. Fiber-reinforced concrete (FRC) is characterized by standard test methods such as ASTM C1399, C1609, and C1550 or RILEM TC162 (EN14651). The flexural residual strength of FRC is measured using these beam tests and is used for design purposes with proper conversion factors. Typical test results for ASTM C1609 (FRC beam) and C1550 (FRC round panel) are shown for PSI STEEL FIBER C6560 macro synthetic fiber tested at different dosage rates. These test results could vary with mix design and curing conditions.

**Clean-up**

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

**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.