

SSF TYPE I (HOOKED END)

HIGH PERFORMANCE STEEL FIBER, ASTM A820

Low-carbon, hooked-end, drawn wire for reinforced concrete. SSF Type I (HE) fibers distribute stresses within the concrete and provide improvement to ductility.

Meets the requirements of ASTM A820.

Product Specs

Filament Diameter	0.02" (0.5 mm), 0.035" (0.9 mm)
Fiber Length	1" (25 mm), 1.5" (38 mm)
Specific Gravity	7.8
Tensile Strength	165 ksi (1100 MPa)
Flexural Strength	29,000 ksi (203 GPa)
Melting Point	2760° F (1516° C)
Color	Gray
Water Absorption	Nil
Alkali Resistance	High
Corrosion Resistance	High

Product Description

SSF Type I "Hooked End" (HE) steel fiber products are cold-drawn monofilament steel fibers for use in reinforced concrete and shotcrete. SSF Type I (HE) steel fibers are specifically designed for use in concrete products for the purpose of primary reinforcement and are available in loose or collated versions.

Advantages/Benefits

- Provides multi-dimensional reinforcement.
- Improves impact resistance of concrete.
- Enhances durability and toughness of concrete.
- Excellent finishability

Mixing

SSF Type I (HE) steel fibers can be added directly to the mixing system during or after the batching of the ingredients and mixed at high speed for a minimum of five minutes. Additional mixing does not adversely affect the distribution or overall performance of SSF Type I (HE) steel fibers. The addition of SSF Type I (HE) steel fibers at the normal recommended dosage rate does not require any mix design or application changes. A water reducer or super-plasticizer is recommended in concrete products where improved workability and finishability are desired.

Storage and Shelf Life

NYCON products should be stored in dry warehouse. Protect product from the rain.

Packaging

- (50) 50 lb (22.7 kg) paper bags per pallet, 2500 lbs per pallet



APPLICATIONS / DOSES	BENEFITS
Shrinkage Control 20-30 lbs per CY, 10-15 kg/m ³	Length and count is a consideration. There are durability benefits provided at this dosage level.
Light Traffic and/or Static Loading 30-40 lbs per CY, 15-20 kg/m ³	Steel fibers provide secondary shrinkage reinforcement and durability benefits. A degree of load carrying can be assigned to the steel fibers at the upper end of the dose range.
Medium Dynamic and/or Static Loading 40-60 lbs per CY, 20-30 kg/m ³	Steel fibers provide secondary shrinkage reinforcement, durability benefits and for slab-on-grade. Shotcrete and precast products benefit from steel fibers
Heavy Dynamic and/or Static Loading 60-100 lbs per CY, 30-50 kg/m ³	At this dosage, steel fibers translate into enhanced engineering properties. Applications include runways, taxi-ways, tunnel liners, slope stabilization and jointless floors.
Special Applications 100-160 lbs per CY, 50-80 kg/m ³	These applications include heavy-duty systems, such as ballistic blast walls.

Tooling & Finishing

Fiber reinforced concrete can be finished by most finishing techniques. SSF Type I (HE) steel fiber does not affect the finishing characteristics of concrete. SSF Type I (HE) steel fiber can be used in power/hand troweled concrete, colored and broom finished concrete.

SSF Type I (HE) steel fiber can be pumped and placed using conventional equipment. Hand screeds can be used, but vibratory and laser screeds are recommended to provide added compaction and bury surface fibers.

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