Premix Hook End 80/60 Glued Steel Fiber

PREMIX HOOK END 80/60 GLUED STEEL FIBERS

Premix Hook End 80/60 Glued Steel Fibers are designed specifically for the reinforcement of concrete, mortars and other cementitious mixes. Premix Hook End 80/60 are cold drawn wire fibers that have been bent into hooked shapes and joined together forming bundles which provide optimum performance within the concrete mix. The Glued steel fibers are water soluble with good dispersion in concrete. Premix Hook End 80/60 Glued steel fibers are ASTM & EN compliant and specially designed to meet or exceed the defined performance requirements.

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 fiber bridging joints and cracks to provide tighter aggregate interlock resulting in increased load carrying capacity.
- Provides increased ultimate load bearing capacity which allows possible reduction of concrete section.
- Requires less labour to incorporate into concrete that 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.

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PRIMARY APPLICATIONS

- Ground Supported Slabs
- Jointless Floors
- External roads & pavement
- Manhole Covers
- Residential Application
- Tunnel Application

COMPLIANCE

- Conforms to ASTM A820, Type I cold drawn wire
- Testing conforms with ASTM A820
- Testing conforms with BS EN 14889-1

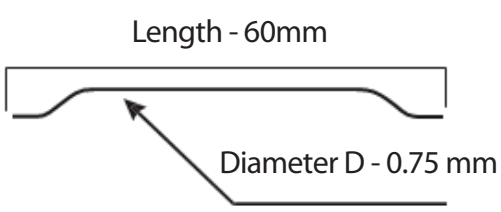
TYPE

Premix Hook End 80/60 Glued Steel fiber

NOMINAL DIMENSIONS

Diameter D	0.75 mm
Length L	60 mm
Aspect Ratio L/D	80
No. of Fibers per kg	4673

GEOMETRY
Premix 80/60
Premix Hooked End Steel Fiber



D = 0.75 mm
L = 60 mm
Tolerance for D/L ± 10%
As per ASTM EN Standards

MECHANICAL PROPERTIES

Tensile strength of the wire	1250 mpa
Strain at failure	4%
Camber of the Fiber	max. 5% of L'
Young's Modulus	200,000 N/mm2 approx.

PRODUCT USE

MIXING DESIGNS AND PROCEDURES:

Premix Hook End 80/60 Glued 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 conveyor 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 Hook End 80/60 Glued Steel fibers can be pumped and placed using conventional equipment. Hand or vibratory screeds and laser screeds can be used with Premix Hook End 80/60 Glued Steel fibers.

FINISHING:

Conventional finishing techniques and equipment can be used when finishing, Premix Hook End 80/60 Glued 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.

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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 10 kg to 40 kg per cubic meter. Premix fiber Technical team can offer advice on dosage requirements once performance requirements have been established by the project designer/engineer.

COMPATIBILITY

Premix Hook End 80/60 Glued Steel fibers are compatible with all curing compounds, super plasticizers, water reducers, hardeners and coatings.

FIBER NETWORK

4673 fibers/kg
2.9 km per m3 (for 10 kg/m3)

SAFETY

It is recommended that gloves and eye protection be used when handling or adding Premix Hook End 80/60 Glued Steel fibers to concrete.

PACKAGING

Premix Hook End 80/60 Glued Steel fibers are available, as standard in 25 kgs bag.

TECHNICAL SERVICES

Premix fiber is backed by our team of reinforced concrete consultants who can carefully analyze each project and provide fiber reinforced concrete design solutions to ensure maximum project performance and cost efficiency.

REFERENCES

- ASTM A820 Standard Specification for Steel Fibers for Fiber Reinforced Concrete.
- BS EN 14889-1
- ASTM C1116 Standard Specification for Fiber Reinforced concrete and shotcrete.
- ASTM C1018 Standard Test Method for Flexural Toughness and First Crack Strength of Fiber-Reinforced Concrete.
- IRC: SP:46:2003 Code of Indian Road
- CongressIS:12592:2002 SFRC Manhole covers

SPECIFICATION CLAUSE

Fibers for concrete shall be Premix Hook End 80/60 Glued Steel fiber conforming to ASTM A-820M

Type I and manufactured from cold drawn wire with a minimum tensile strength of 1250 mPa /N/mm2

PURUSHOTTAM
STEEL WOOL PVT LTD

Plot No. 20, Vastu Pratik Apartments, Above Prasad Medicals, Pratap Nagar,
Nagpur - 440022 (India). Mobile: +91-7039624605 / 9503045001
E-mail: psw.fiber@gmail.com | Website: psteelwool.com