

HIND STEEL FIBER (FC)

PRODUCT DATA SHEET

FLAT CRIMPED STEEL FIBER

DESCRIPTION

Hind Steel Fiber (FC) is a superior quality low carbon drawn steel wire flat crimped fibers especially designed to offer most convenient and cost effective product for concrete reinforcement. The fibers are manufactured from high tensile strength wire >1000 Mpa in accordance with **ASTM A820 M04 Type 1 Standards**. Using **Hind Steel Fiber (FC)** enhances the strength, crack resistance, shear resistance and flexural strength of concrete. Using **Hind Steel Fiber (FC)** can eliminate the use of shrinkage. Thickness of the slab can be minimized upto 40% . It is suitable for joint free design.

USES

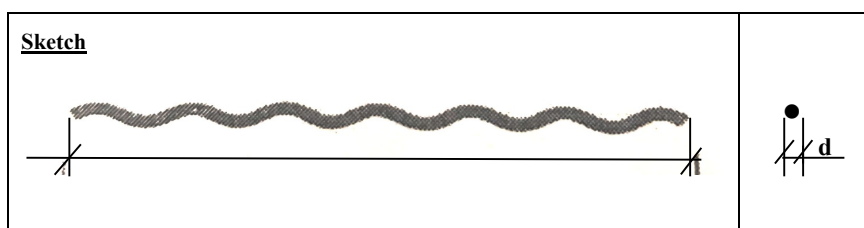
Hind Steel Fiber (FC) has its uses in Concrete Slabs, Channel Lining, Water Conservancy, Tunnels, Dam Construction, Anti-Ballistic Impact, Precast Concrete Elements, Extruded Roadways Structures, Industrial Floorings, Pavements, Anti-earthquake designs, Highways, Roadways and Bridges, Foundation Layers, Parking Areas & Airport Runways and Railway Slippers.

ADVANTAGES

- Replacement of rebar mesh.
- Easy dispersing, no balling and cracking.
- Increased concrete ductility & tensile strength is obtained.
- Increases the shock-shear strength of slab /column structure.
- Prevents anti abrasion and anti-cavitations erosion.
- Increases bending resistance and anti-shear fatigue.
- Loose and unglued **Hind Steel Fiber (FC)** requires less labour and time to place concrete in comparison to glued steel fiber, wire mesh or bar reinforcement.
- Improves overall efficiency and reduces overall cost drastically.

APPLICATION

Hind Steel Fiber (FC) may be added before, during or after the batching of the concrete as per ASTM C 94 (4-5 minutes at mixing speed or approximately 60-70 revolutions). In batching plants fibers to be added by a shaker or through hopper to the aggregate on a conveyor belt during aggregate addition and mixed in normal condition. If fibers are added to truck mounted mixer the drum should rotate at maximum speed and the steel fibers to be added slowly. This is important to avoid clump avoiding balling effect. Depending on fiber type dose rate the concrete slump to be increased by adding super-plasticizer, before fibers are added. Use of Micro silica is beneficial along with steel fibers. Steel fibers should not to be used as a first component in the concrete mix.



DOSAGE

Depending on the structural requirements dosage may vary. For general guidelines the dosage recommended are **45-85 Kg/m³ for Dry Mix Concrete, 45-60 Kg/m³ for Wet Mix Concrete and 20-40 Kg/m³ for Concrete Slab.**

PROPERTIES

Material	Carbon Steel Wire
Fibre Type	Loose unglued with hooked end
Aspect Ratio	40-90
Length (mm)	25 - 60 + 10%
Diameter (mm)	Ranging from 0.05 to 0.75 and also 1.0
Tensile Strength (Mpa)	1000 – 1400 + 15%

PACKING

Available in 20/25 Kg Non-Woven HDPE Bags. Palettes available on request.

SHELF LIFE

Unlimited from the date of manufacture from the date of manufacturing in unopened conditions. To be stored in a cool and dry place away from direct sunlight at temperature ranging between 2⁰ C (Min.) and 50⁰ C (Max.)

HANDLING PRECAUTION

Hind Steel Fiber (FC) has a risk of injury from protruding fibers. Use of gloves and eye protection goggles to be used while using steel fibers. Use no Hooks. No stacking is required.

Note:

- **Hindcon Chemicals** maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products.
- The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.
- Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behavior can change as per the prevailing conditions at the time of applications.
- Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use.
- The right to change the properties of the products is reserved with us. The proprietary rights of third parties must be observed. All orders are accepted subject to the terms of sale and delivery. Users must always refer to the most recent issue of the latest Data Sheet for the product concerned, copies of which will be supplied on request.

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