

DonFiber ST Type I (1.00 x 50 mm)



High performance steel fibers with hooked ends for reinforcement of concrete and mortar (Formerly known as ST Fiber Type 1)

DESCRIPTION

DonFiber ST Type I (1.00 x 50 mm) is steel wire filaments with hooked ends. Steel fibers are designed for use with all types of concrete mixes to enhance mechanical properties and reduce plastic shrinkage cracking.

APPLICATIONS

DonFiber ST Type I (1.00 x 50 mm) is ideally designed for use in the following applications:

- » Shotcrete.
- » Tunnel segments.
- » Pre-cast concrete.
- » Industrial floors.
- » Composite decks.
- » Pavements.
- » Slabs on piles.
- » Foundation slabs.
- » Shear reinforcement in prestressed elements.
- » Slab-on-grade.

ADVANTAGES

- » Increase in load bearing capacity.
- » Increase in flexural bending strength.
- » Increase in fatigue and abrasion resistance.
- » Greater impact resistance and improved resistance to dynamic loads.
- » Reduction in shrinkage cracks due to full depth reinforcement distribution.
- » Economic advantage such as reduction in section thickness and construction time.
- » 1 - 2 hours fire rating.

STANDARDS

DonFiber ST Type I (1.00 x 50 mm) complies with ASTM A820, Type I and EN 14889-1.

METHOD OF USE

To ensure proper mixing, DonFiber ST Type I (1.00 x 50 mm) should never be added as the first component of the concrete or mortar mix. DonFiber ST Type I should be added during or after the batching of the concrete mix.

Mixing time should be continued for 5 minutes or 70 revolutions to ensure a uniform distribution of the fibers in the concrete mix.

TECHNICAL PROPERTIES:

Diameter (± 0.02 mm)	Length (± 2 mm)	Aspect ratio (L/D)	Tensile strength of drawn wire (MPa)
1.00	50	50	1100 - 1400



The addition of DonFiber ST Type I (1.00 x 50 mm) at the recommended dosage rates may decrease the slump; however, additional water should not be added. To achieve the desired workability, only a water reducing or high range water reducing admixture should be used.

The addition of DonFiber ST Type I (1.00 x 50 mm) at the recommended dosage rate does not require any changes in mix design or application changes. The fiber reinforced concrete can be mixed, sprayed or placed using conventional equipment.

DOSAGE

The guidance dosage of DonFiber ST Type I (1.00 x 50 mm) is 10 - 60 kg per m³ of concrete. Representative trials should be conducted to determine the optimum dosage of DonFiber ST Type I (1.00 x 50 mm) to meet the performance requirements by using the materials and conditions in actual use.

Note: A dosage of DonFiber ST Type I (1.00 x 50 mm) at a rate of 3,000 - 4,000 pieces in m³ of concrete will diagonally intercept the propagation of any initial crack, this will ensure that the maximum crack width - if occurred - will not exceed 0.3 mm.

PACKAGING

DonFiber ST Type I (1.00 x 50 mm) is available in 20 kg and 25 kg bags.



STORAGE

Store under cover away from heat sources.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

CAUTIONS

HEALTH AND SAFETY

There are no health hazards associated with DonFiber ST Type I (1.00 x 50 mm).

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- » Sealants.
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- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

Don Construction Products / Jordan

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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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