

DonFiber ST300

High performance corrugated steel fibers for reinforcement of concrete and mortar



DESCRIPTION

DonFiber ST300 are corrugated steel wire fibers, designed for use with all types of concrete mixes to enhance mechanical properties and reduce plastic shrinkage cracking.

APPLICATIONS

DonFiber ST300 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 pre-stressed elements.
- » Slab-on-grade.

ADVANTAGES

- » Increases the compressive and tensile strength capacity.
- » Increases the load bearing capacity.
- » Increases the flexural bending strength.
- » Increases the fatigue and abrasion resistance.
- » Improves the resistance to impact and dynamic loads.
- » Reduces the shrinkage cracks due to full depth reinforcement distribution.
- » Cost effective, replaces the need of reinforcement wire mesh, thus it can achieve up to 15% cost reduction in floor construction compared with one reinforced by traditional reinforcement mesh.
- » Reduces the construction time by eliminating fitting time of reinforcement steel and replacing with fibers dispensing.

STANDARDS

DonFiber ST300 complies with ASTM A820, Type I and EN 14889-1.

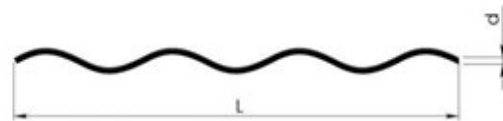
METHOD OF USE

MIXING

To ensure proper mixing, DonFiber ST300 should never be added as the first component of the concrete or mortar mix. DonFiber ST300 should be added during or after the batching of the concrete mix.

TECHNICAL PROPERTIES:

Appearance:	Corrugated steel fiber
Cross section:	Round
Tensile strength of drawn wire:	1100 - 1400 MPa
Biological resistance:	Excellent



PRODUCT RANGE:

Designation	Length (mm)	Diameter (mm)	Aspect ratio (L/D)
ST/C 0.75 x 30	30 ± 5%	0.75 ± 5%	40
ST/C 1.00 x 40	40 ± 5%	1.00 ± 5%	40
ST/C 1.00 x 50	50 ± 5%	1.00 ± 5%	50
ST/C 1.05 x 60	60 ± 5%	1.05 ± 5%	57

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

The addition of DonFiber ST300 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 ST300 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 dosage range of DonFiber ST300 is 15 - 40 kg per m³ of concrete, recommended dosage is 25 kg/m³. Representative trials should be conducted to determine the optimum dosage of DonFiber ST300 to meet the performance requirements by using the materials and conditions in actual use.



DonFiber ST300

PACKAGING

DonFiber ST300 is available in paper sacks of 20 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 risks associated with proper use of the product.

For further information refer to the Material Safety Data Sheet.

MORE FROM DON CONSTRUCTION PRODUCTS

A wide range of construction chemical products are manufactured by DCP which include:

- » Concrete admixtures.
- » Surface treatments
- » Grouts and anchors.
- » Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

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.