

DonFiber PP Macro E

High-performance corrugated macro polypropylene fibres



DESCRIPTION

DonFiber PP Macro E is a synthetic corrugated macro fibre reinforcement, manufactured from 100% polypropylene fibres.

The inclusion of DonFiber PP Macro E within a concrete mix or cementitious mixes will reduce and control plastic shrinkage, plastic settlement cracks and early age cracks, increase crack control under high pressure and minimize spalling and chipping in conjunction points, therefore enhancing the durability of hardened concrete.

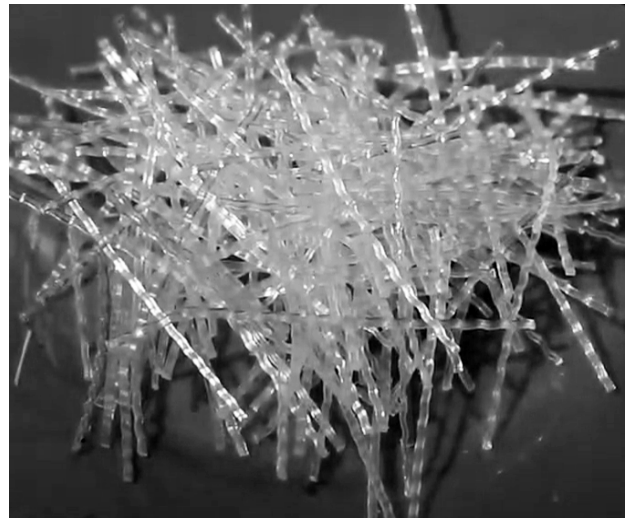
APPLICATIONS

DonFiber PP Macro E is ideally designed for the following applications:

- » Slab on grade.
- » Shotcrete.
- » Tunnels linings, segments, and slope stabilization.
- » Airport runway and taxiway.
- » Industrial floors, and forklift truck areas with high impact.
- » Chemical plants.
- » Precast concrete.
- » Parking areas.
- » Driveways, roads, highways, quays.
- » Residential applications.
- » Subterranean walls.
- » Mines and canals.
- » Cementitious tiles and architectural panels.

ADVANTAGES

- » Controls and inhibits crack formulation caused by plastic shrinkage, settlement or other internal stresses in concrete.
- » Improves fresh mix properties (homogeneity & cohesiveness).
- » Increases concrete durability and toughness.
- » Provides higher bond with the mix due to its corrugated/ serrate shape.
- » Enhances Flexural, compressive, and splitting tensile strength
- » Increases shock, impact, and fatigue resistance.
- » Replaces light gauge welded-wire reinforcement and traditional shrinkage and temperature reinforcement.
- » High resistance to static and friction loads.
- » Reduces breakage, splitting, and chipping.
- » Restrains shrinkage cracking, and acts as post-crack reinforcement.
- » Compatible with all types of cement and concrete admixtures.
- » Rust-free.



TECHNICAL PROPERTIES:

| | |
|------------------------|-------------------------------|
| Composition: | 100% virgin polypropylene |
| Colour: | White |
| Form: | Corrugated macro fiber |
| Density: | 0.90 ± 0.02 g/cm ³ |
| Tensile strength: | ≥ 450 MPa |
| Modulus of elasticity: | ≥ 3.5 GPa |
| Ignition point: | 590°C |
| Alkali resistance: | Resistant |
| Corrosion: | Non-corrosive |

STANDARDS

DonFiber PP Macro E complies with the requirements of ASTM C1116, Type III, ASTM D7508.

METHOD OF USE

MIXING

DonFiber PP Macro E with a sufficient dosing, can be added into mix in the aggregate band directly. It can also be added to the ready mix truck ensuring proper distribution within concrete.

Mix for 5 - 6 minutes at high speed after the addition of the final dosage to ensure uniform distribution of fibers.



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DOSAGE

Dosage of DonFiber PP Macro E will vary depending on the area of application and the required properties of concrete mixes. Typical dosage is between 3.0 – 5.0 kg/ m³ of concrete.

DonFiber PP Macro E can be used as secondary reinforcement and replace traditional shrinkage and temperature steel mesh within concrete, following necessary project calculations.

PACKAGING

DonFiber PP Macro E is available in 30 and 50 mm fibre length (min tolerance 2%). filled in 5 kg plastic bags.

Other fibre lengths are available upon request.

STORAGE

Store in original unopened packaging in dry and shaded areas at temperatures between 5°C and 30°C, protected from moisture and direct sunlight and away from flammable or oxidizing materials.

DonFiber PP Macro E should not be stacked on top of each other unless proper precautions are taken.

If these conditions are exceeded, contact DCP Technical Department 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.

FIRE

DonFiber PP Macro E is combustible and will burn if exposed to flame or other sources of ignition.

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.