# Macro PP Fiber

High performance monofilaments polypropylene macro fiber



# Description

Macro PP Fiber is a synthetic macro fiber manufactured of 100% polypropylene fibers containing no reprocessed olefin materials and with excellent alkali resistant, impermeable and non-corrosive properties.

The unique composition of Macro PP Fiber makes it an excellent alternative to the traditional reinforcement steel mesh in order to significantly reduce the plastic shrinkage cracking and enhance the durability and the mechanical properties of the cementitious mixes.

# **Applications**

Macro PP Fiber is ideally designed to decrease the plastic shrinkage cracking in the following applications:

- ▲ Slab on grade.
- ▲ Elevated slabs.
- ▲ Parking areas.
- ▲ Stamped concrete.
- ▲ Pre-cast concrete.
- ▲ Water tanks.
- ▲ Pavements.
- ▲ Shotcrete.
- ▲ Renders.
- ▲ Composite decks.

# **Advantages**

- ▲ Controls and inhibits crack formulation caused by plastic shrinkage, settlement or other internal stresses in concrete
- ▲ Cost effective, replaces secondary reinforcements steel mesh.
- High tensile strength.
- ▲ Easily distributed throughout the cementitious mix.
- ▲ Compatible with all types of cement and concrete admixtures.
- ▲ Rust free.

### Standards

- ▲ Macro PP Fiber complies with the requirements of ASTM C1116, Type III.
- ▲ Macro PP Fiber complies with BS EN 14889-2 for structural use in concrete.

# Technical Properties:

Composition: 100% virgin polypropylene

Shape: Monofilaments macro

fiber

Specific gravity:  $0.95 \pm 0.05$ 

Modulus of elasticity: 3.4 - 4.0 GPa

Absorption: Nil

Melting point: 160°C

Ignition point: 580°C

Chloride content: Nil

Sulphate content: Nil

Alkali content: Nil



### Method of Use

### Mixing

Macro PP Fiber is added to the mixer before, during or after batching of concrete. The mixing time and speed should be as per ASTM C94. Before discharging the mixture, set the mixer at the maximum speed for 1-2 minutes to ensure uniform distribution.

### Dosage

Dosage of Macro PP Fiber will vary depending on the area of application and the required properties of concrete mixes.

Typical dosage is between 1.0 - 5.0 kg/m³ of concrete.

Please contact DCP Technical Department for assistance in product optimization.

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# Macro PP Fiber

# **Packaging**

Macro PP Fiber is available in 6 kg bags.

### Storage

Store in original unopened packaging in dry and shaded areas.

### **Cautions**

### Health and Safety

There are no health hazards associated with Macro PP Fiber in normal use.

#### Fire

Macro PP Fiber 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.

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#### Note

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