



PAVILAND® FIBRA MACRO CO-PO

Fibra Macro CO-PO

DESCRIPTION

Paviland Fibra Macro CO-PO is a 54 cm long fibre, made of 100% virgin Copolymer-Polypropylene, specially designed for the structural reinforcement of concrete. Its structure made of twisted mono filament fibres, offers maximum durability without the risk of corrosion.

ADVANTAGES AND USES

- No surface sharp ends after the incorporation of the wearing course (Paviland Industrial / Industrial CR / Industrial MT) and polishing.
- Double mesh or steel fibres are not required to provide the structural resistance to bending of the concrete.
- Optimizes application times and therefore labour costs. It does not damage any equipment or tools when applying it.
- Specially recommended for concretes exposed to saline environments. Increases the lifespan of concrete.
- It reduces the number of cracks caused by thermal shrinkage supporting concrete structures exposed to freeze-thaw cycles.
- It improves the concrete properties thanks to the distribution of the fibre within the concrete.
- It improves the resistance of concrete against breakage, impact and abrasion.
- Recommended to be added in precast elements concrete, coastal and marine structures, industrial pavements and tunnels.

APPLICATION PROCEDURE

- Add directly to the concrete while mixing in a concrete mixer or to the aggregate conveyor belt in the plant.
- The dosage varies between 2.5 and 5 Kg/m³ of concrete, depending on the project requirement.
- Increase the fluidity of the cone between 4 and 6 cm with regards to the desired final cone, using fluidifier additives and / or superplasticizers.
- It is recommended to add the fibre little by little (from 5 to 5 kg), kneading for at least 2 minutes each time the product is added and performing a final 3-minute kneading.

RECOMMENDATIONS

- It is compatible with any additive for concrete.
- Consult the Technical Department for any application not specified in this Technical Data Sheet.
- For all information regarding safety in handling, transport, storage, and use of the product check the label and the updated version of the product Safety Data Sheet.
- It is advisable to carry out contraction joints during the first 24 hours to avoid the appearance of cracks.
- The material is provided in polythene bags which are not water-soluble and therefore, they should not be added to the concrete.

PACKAGING AND STORAGE

5 Kg Polythene bags.

Storage in its original closed container, sheltered from open air and humidity.

FLOORING

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TECHNICAL DATA

(Statistic result are obtained under standard conditions)

Material	100 % copolymer - polypropylene
Length	54 mm (2% de tolerance)
Norm	EN 14889-2 TIPO II, ASTM C1116 TIPO III, ASTM D7508, ICC AC383
Equivalent diameter	0,48 – 0,50 mm (5 % of minimal tolerance)
Width/length ratio	112
Colour	Grey
Specific weight	0,91 gr/cm ³
Elastic module	7,2 – 8,5 GPa
Resistance to breakage by traction	560 – 650 MPa
Number of filaments	> 200.000/Kg
Corrosion	Non-existent
Chemical resistance	Resistance to acids and alkali
Magnetism	Non-magnetic
Melting point	165 °C
Fire point	> 360 °C
Water absorption	No, hydrophobic
Memory effect	No

Residual resistance

2 Kg/m ³	Residual resistance (MPa) depending on crack opening (mm)			
	0,5 mm	1,5 mm	2,5 mm	3,5 mm
C25/30	0,49	0,67	0,84	0,93
C35/40	0,80	1,06	1,35	1,53

3 Kg/m ³	Residual resistance (Mpa) depending on crack opening (mm)			
	0,5 mm	1,5 mm	2,5 mm	3,5 mm
C25/30	1,51	1,55	1,62	1,54
C35/40	1,58	1,60	1,65	1,57

5 Kg/m ³	Residual resistance (Mpa) depending on crack opening (mm)			
	0,5 mm	1,5 mm	2,5 mm	3,5 mm
C25/30	2,07	2,48	2,61	2,66
C35/40	2,23	2,95	3,05	3,00

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