



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

PAVILAND® FIBRA MACRO CO-PO

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

Rev. 2023_09 - This revision cancels all previous ones. Please, obtain the latest version from our web site - www.grupopuma.com - (+34) 957 76 40 40

LEGAL DISCLAIMER

The instructions for use are given according to our tests and knowledge and do not imply any commitment by GRUPO PUMA nor free the consumer from the examination and verification of the products for their correct use. Claims must be accompanied by the original packaging to allow a proper traceability.

GRUPO PUMA is not responsible, in any case, for the application of its products or constructive solutions carried out by the application company or other parties involved in the process and / or execution of the work, limiting the responsibility of GRUPO PUMA exclusively to the damages directly attributable to the supplied products, individually or integrated in systems, due to failures in their manufacturing process.

In any case, the drafter of the work project, the technical management or the person responsible for the work, or collaterally the application company or other parties involved in the process and / or execution of the work, must ensure the suitability of the products addressing the characteristics of them, as well as the conditions, support and possible pathologies of the work in question.

The values obtained by GRUPO PUMAS's products or its constructive solutions that, as the case may be, are determined by the EN standards or any other regulation that applies to it in each case refers exclusively to the conditions specifically stipulated in said regulation and that are referred to, among others, to certain characteristics of the support, humidity and temperature conditions, etc. without being them required in the tests obtained under different conditions, all in accordance with the relevant regulation.