

FIBRE PE

Reinforcing fibres for sand and cement screeds and for concrete



Description

FIBRE PE are extruded polyester synthetic fibers with high tenacity oriented fibers that, when inserted into a concrete casting, replace the contrasting mesh.

FIBRE PE They are made of special polymeric material and treated superficially to improve adhesion and to resist chemical aggression during all phases of the life of the dough to which they are added.

The fibers have a mechanical anchorage consisting of the particular double croaching geometry of the ends to improve the resistance to slipping.

Field of application

FIBRE PE are used as concrete reinforcement in:

- Industrial floors (with spaced joints).
- Roads.
- Parking areas.

They are used as reinforcement of screeds, in particular:

- Screeds for radiant floors before laying resins.
- Screeds for roofs, terraces and balconies before laying resins.
- Screeds in general before laying resins both indoors and outdoors.

Advantages

- The use of concrete reinforced with FIBRE PE reduces the installation time of the floor compared to reinforcement with mesh.
- The thickness of the floor, with the same mechanical performance, can be reduced with the use of FIBRE PE compared to mesh reinforcement.
- The homogeneous distribution of mechanical stresses in the floor following the use of FIBRE PE improves the maximum load performance that can be supported by the floor.
- The homogeneous distribution of FIBRE PE throughout the depth of the floor improves crack resistance.
- The use of concrete reinforced with FIBRE PE allows to increase the spacing of the joints.
- FIBRE PE are not subject to corrosion and therefore do not need to be stored in covered and moisture-protected places (difficult to find on construction sites as they involve a rather large burden).

Product application

The FIBRE PE can be added in considerable quantities to the dough, without problems of bulleting or formation of nests and without the use of special equipment for their distribution and loading. It is always preferable to add FIBRE PE directly into the mixer at the batching plant.

► To the concrete batching plant

The FIBRE PE are introduced with aggregates on the conveyor belt.

► In the truck mixer

Empty the bags of FIBRE PE into the packaged concrete mixer truck as the last ingredient.

► In the mixer for manual application

- Insert the FIBRE PE directly into the dough maker.

Consumption

FIBRE PE

type of application	minimum consumption	maximum consumption	u.m.	notes
all	3	5	kg/m ³	(1)

(1) Estimated consumption per m³ of cement mix.

Useful tips for laying

- The use of a constant particle size curve is recommended.
- Mix the dough until the fibres are completely and evenly distributed.
- The mixing time of the mixture usually does not increase following the addition of FIBRE PE.
- Always carry out a preliminary test when using special cements or additives.

Technical Data

► PRODUCT IDENTIFICATION DATA	value	
Color	-	Grey
Length	mm	30
Width	mm	1,20
Thickness	Mm	0,45
Tensile strength	Mpa	600 ± 200
Melting point	°C	253
Young's modulus of elastic	kN/mm ²	11,3
Water absorption	-	0,04 %
Minimum elongation	-	8 %
Resistance to cement alkalis	-	High

Product storage

- No time limit in the original packaging.
- The FIBRE PE are not subject to corrosion and therefore do not need to be stored in covered places and sheltered from moisture (difficult to find on construction sites as they involve a rather large burden).

Packaging

VARIANT	PACKAGE	ADR	PACKAGE / PALLET	COMPONENTS	NOTES
L = 30 mm	bag - 5 kg	NO			-

ADR legend:

NO = NON-DANGEROUS goods

P* = DANGEROUS goods packed in limited quantities (packed as per ADR Chapter 3.4)

Si = DANGEROUS Goods

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It is the user's responsibility to verify in advance, also through suitable tests, the suitability of the product for the intended use, compatibility with the substrate, appropriate environmental application conditions, and the execution of the installation according to workmanship standards, assuming all liability arising from the use of the product and the final result of the works.

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EDITION

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