

PAVILAND® FIBRA DE VIDRIO AR

DESCRIPTION

Paviland AR Glass Fibre is a high-integrity, alkali-resistant chopped glass fibre designed for use in reinforcing concrete and mortars.

ADVANTAGES AND USES

- It avoids the apparition of cracks in fresh and hard concretes and mortars.
- It improves mechanical properties of hard concrete replacing welded wire mesh placed in the upper third of the floor (consult appropriate dosages).
- It improves mechanical properties and durability of the concrete. It improves the concrete's workability.
- It improves the concrete's weather-resistance.
- Sidewalks, sports tracks, screeds in apartments or parking decks, industrial floors, indoor or outdoor parking lots, stamped or polished floors, refrigeration rooms, gas stations, patios, rural roads and others.

APPLICATION PROCEDURE

- It is directly added as the last component to concrete and mortars.
- Mixing time: 1 minute for every 3-4 kg added at maximum mixer speed.
- Do not exceed a mixing time of 12-15 minutes.
- Better results with aggregates of up to 20 mm.
- Better mixing results with fluid or soft concrete.
- For its correct functioning, the concrete must be treated according to good practices, as its only function is to replace placed wire meshes in the upper third of the floor. If aspects such as the correct formulation of the concrete, timing of shrinkage cuts, appropriate thicknesses for the loads, proper ground preparation to achieve a minimum ballast modulus of 2,500 T/m³, correct distances between cuts, placement of a sheet at the base of the screed, aiding in the curing of the concrete by applying PAVILAND DC2 or AC2 curing resins or protection and curing, application of a bonding bridge between existing concretes, etc., are neglected, the fibre will not be able to function correctly.

RECOMMENDATIONS

- It does not require the addition of water or superplasticizers.
- Resistant to concrete alkalis (minimum content of zirconium).
- It does not leave any fibres on the concrete or mortars' floors.
- Suitable for spraying without no need of additives. Compatible with any additives for concrete. Resistant to all kind of acids.
- It is easily mixed due to its density, which is like the concrete one.
- It does not increase the spacing between shrinkage cuts.
- It cannot replace steel reinforcements in structural elements (it cannot replace steel in compression layers, beams, etc.)
- Consult with the Technical Department for any application not specified in this Technical Data Sheet.
- For any information regarding safety in handling, transportation, storage, and use of the product, please refer to the label and the updated version of the product's Safety Data Sheet.
- The maximum spacing between cuts should be equal to the thickness of the floor multiplied by 25. The depth of the cut should be equal to the 33% of the floors' thickness.
- The length of the cut should not exceed the width x 1.5.
- The use of PAVILAND FIBRA DE VIDRIO AR does not exempt the obligation to construct screeds in accordance with the corresponding regulations.
- It is advisable to conduct the joints / shrinkage cuts within the first 24 hours after pouring the concrete to prevent the floor from subsequent cracking.
- For the execution of levelling screeds, it is recommended to properly clean the substrate and apply a bonding bridge beforehand.

FLOORING

PAVILAND® FIBRA DE VIDRIO AR

PACKAGING AND STORAGE

- For the execution of road traffic pavements, it is recommended to install dowel bars between the different sections according to the following recommendations.

CONNECTORS		
Tile's thickness (cm)	Bar's length (cm)	Bar's diameter (cm)
12 to 18	40	2
18 to 30	50	2,5

1 kg bag.

Boxes of 12 bags.

Store in its original closed container, away from extreme weather conditions and humidity

TECHNICAL DATA

Fibre's length	12,9 – 13,5 mm
Filament's diameter	13,5 microns
Specific weight	2,69 gr/cm ³
Approximate number of filaments per kg	200 million
Wet	<0,4%
Minimum zirconium content (ZrO ₂)	16,6%
Softening temperature	850°C
Resistance to break by traction	1610 MPa
Young module	78,000 MPa
NORM	UNE EN 15422

FLOORING

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USE OF THE FLOOR		FLOOR	FLOOR*	PARKING LOTS*
CONCRETE HA 25 THICKNESS (cm)	Pedestrian	A shelf with support legs measuring 11x11 cm, supported on 4 legs. 8,000 total kg	Small wheel stack truck 5,500 total kg	Private cars, vans, small delivery trucks 6,000 total kg
25	1 kg/m ³			
24				
23				
22				
21				
20				
19				
18				
17				
16				
15				
14				
13				
12				
11				
10				
9				
8				
7				
6				
5				
4				

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FLOORING

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USE OF THE FLOOR	PARKING LOTS* Two-axle rigid trucks 18,000 total kg	PARKING LOTS* three-axle rigid trucks 26,000 total kg	PARKING LOTS* Four-axle rigid trucks 32,000 total kg	PARKING LOTS* Five-axle rigid trucks 45,000 total kg
CONCRETE HA 25 THICKNESS (cm)				
25				
24				
23				
22				
21				
20				
19				
18				
17				
16				
15				
14				
13				
12	From 18 cm	From 18 cm	From 18 cm	From 18 cm
11	Dosage: 2 kg/m ³ E2 type terrace	Dosage: 2 kg/m ³ E2 type terrace	Dosage: 2 kg/m ³ E2 type terrace	Dosage: 2 kg/m ³ E2 type terrace
10				
9				
8				
7				
6				
5				
4				

For other applications, weights, or different conditions, please consult with your supplier.

*ASSUMED MANEUVERING SPEED: 10 KM/H AND 50 MOVEMENT REPETITIONS PER DAY.

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FLOORING

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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.

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