

Polites AR 250

Reinforcement for the consolidation of ceilings as part of DIASEN systems for preventing floor collapsing

AR fibreglass mesh designed to solve problems of collapsing floor composed of brick and steel, installed by means of special steel components (screws, dowels, flanges). Alkali resistant, it is to be used in combination with *Diathonite Thermactive.037* or *Diathonite Acoustix*, it contains zirconium dioxide (>16%) and it is manufactured in leno laths.

BENEFITS

- Quick and easy application;
- Lightness and reduced thickness;
- Excellent mechanical characteristics in warp and weft;
- Resistance to atmospheric agents;
- Easy to cut;
- Manageable and easy to apply;
- Can be used in aggressive environments;
- Durability;
- Suitable for all types of substrates;
- Non-flammable

YIELD

1,1 m²/m²

An overlap of at least 10 cm between the mesh sheets must be guaranteed.

COLOUR

Red.

PACKAGING

Single piece: 1 x 50 m **roll**.

Pallet: 550 m² (11 **rolls**)

APPLICATION FIELDS

Certified mesh for securing and reinforcing floor intradoses. It resolves cracking problems in the floor slabs of both concrete and steel slabs and is used in combination with the respective fixing kits.

STORAGE

Polites AR 250 must be stored in well-ventilated areas, away from direct sunlight, water and frost, at

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temperatures between +1°C (+34°F) and +35°C (+95°F).

SUPPORT PREPARATION

For the preparation of the substrate, it is necessary to follow the indications reported on the technical data sheet of the product with which *Polites AR 250* mesh is combined.

APPLICATION IN THE SYSTEMS FOR PREVENTING COLLAPSE OF FLOORS BEAMS

Mixed masonry slabs

1. Preparation of the substrate by checking the existing plaster, removing the portions of the same that have deteriorated and are becoming detached. Checking the condition of the reinforced concrete joists and, if necessary, passivating the irons with a suitable passivating agent and restoring the concrete cover with *Rebuild⁴⁰ R4* structural mortar;
2. Drill an 8 mm hole in the floor joists to accommodate the flange;
3. Remove dust and debris that may form when drilling the support;
4. Apply the primer *Aquabond* to concrete joists. If the floor soffit is plastered, primer the entire surface;



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5. Apply *Polites AR 250* as a reinforcement mesh, taking care to overlap the net sheets by at least 10 cm. Anchor the netting onto the joists using galvanised steel self-tapping screws and a nylon fixing flange (for details, refer to the *Polites Fix Concrete* technical data sheet) to be carried out in a minimum number of 4 per square metre.
6. Anchor *Polites AR 250* to the vertical walls along the perimeter of the slab by means of galvanised steel angle brackets with fixing plugs (for details, refer to the technical data sheet of the *Polites Support*) to be placed at least one every 50 cm.
7. Proceed with the application of the mortar:
 - *Diathonite Thermactive.037* in case there is the need to thermally insulate the slab;
 - *Diathonite Acoustix* in case there is the need to improve the acoustic absorption of the surface and consequently the room acoustics.

The total thickness of the intervention must be of at least 3 cm.

Steel slabs

1. Preparation of the substrate by checking the existing plaster, removing the portions of the same that have deteriorated and are becoming detached. Checking the condition of the steel girders and, if necessary, carrying out an appropriate restoration treatment.
2. Drill holes slightly smaller than the diameter of the screw (approximately 0.5 mm) in the steel girders of the floor slab;
3. Remove dust and debris that may form when drilling the support;
4. Apply *Aquabond* primer to the steel girders. If the slab is plastered, prime the entire surface;
5. Apply *Polites AR 250* reinforcement mesh, taking care to overlap the mesh sheets by at least 10 cm. Anchor the mesh on the joists using self-tapping screws and galvanised

steel metal washers (for details, refer to the *Polites Fix Steel* technical data sheet) to be carried out in a minimum number of 4 per square metre.

6. Anchoring of the *Polites AR 250* mesh to the vertical walls along the perimeter of the floor by means of galvanised steel angle brackets with fixing plugs (for details, refer to the technical data sheet of the *Polites Support*) to be placed at least one every 50 cm.
7. Proceed with the application of the mortar:
 - *Diathonite Thermactive.037* in case there is the need to thermally insulate the slab;
 - *Diathonite Acoustix* in case there is the need to improve the acoustic absorption of the surface and consequently the room acoustics.

The total thickness of the intervention must be of at least 3 cm.

The mesh width of *Polites AR 250* combines perfectly with the grain size of *Diathonite* plasters.

SUGGESTION

- Do not apply at ambient and substrate temperatures below +1°C (+34°F) and above +35°C (+95°F).
- During the summer season, apply the product during the cooler hours of the day, out of the sun.
- Do not apply with imminent danger of rain or frost, in conditions of heavy fog or with relative humidity higher than 70%.
- Follow the indications on the technical data sheet of the product with which *Polites AR 250* is combined.

SAFETY

When handling, comply with what reported into the product safety data sheet.

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The indications and prescriptions given, while representing our best experience and knowledge, are to be considered indicative and must be confirmed by exhaustive practical applications. Diasen does not know the specifics of the application and even less the determining characteristics of the application support. Therefore, before using the product, the applicator must in any case carry out preliminary tests to verify its perfect suitability for the intended use and, in any case, assume all responsibility that may arise from its use. In the event of any uncertainties or doubts, contact the company's technical office before starting work, it being understood that this support is merely an aid for the applicator, who must in any case guarantee that he/she possesses adequate skills and experience for laying the product and for identifying the most suitable solutions. Always refer to the latest updated version of the technical data sheet, available at www.diasen.com, which cancels and replaces all others.

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* The data below, although carried out according to standardised test methods, are indicative and may be subject to change as specific site conditions vary.

Technical data*

Features		Units
Yield	1,1 m ² /m ²	m ² /m ²
Colour	Red	-
Aspect	Net	-
Composition	fiberglass	-
Mesh width (UNI 9311/2)	25x25	mm
Mesh weight (UNI 9311/4)	when coated: 280 not treated: 182	g/m ²
Average thickness when coated	1,10 ± 5%	mm
Application temperature	+1 / +35 +34 / +95	°C °F
Drying time (T=23°C - 73 °F, R.H. 50%)	does not need to dry	-
Number of wires	warp: 38 weft: 38	-
Packaging	1x50 m roll pallet: 11 rolls	m
Warp equivalent thickness (warp t _f)	0,0522 ± 5%	mm
Weft equivalent thickness (weft t _f)	0,0522 ± 5%	mm

Final performances		Unit	Regulation
Break Elongation	1,70%	-	UNI 9311/5
Tensile Strength Single wire (weft/warp) Tensile speed (100 mm/min)	1,57 / 1,60 ± 5%	kN	ISO 10406-1:2015 STS-17/0013
Tensile Strength (weft/warp) Tensile speed (100 mm/min)	59,5 / 60,5 ± 5%	kN/m	-
Glass density (ρ _{glass})	2,68 ± 5 %	g/cm ³	-
Elastic modulus: glass	72.000 ± 5 %	N/mm ²	-
Resistant section (warp)	30,015 ± 5 %	mm ² /m	CNR-DT 200 R1/2013
Resistant section (weft)	30,015 ± 5 %	mm ² /m	CNR-DT 200 R1/2013



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