



Galvanized steel fiber fabric for the Matrix Protect FRCM system

MATRIX GSFIX is a fabric made from microfibers of high-strength galvanized steel thermofixed using aluminum fiber yarn present in the weave. The result is a fabric that ensures excellent stability during installation and workability on site, as it is capable of maintaining the orientation of the fibers.

Ideal for low-thickness fiber-reinforced plastering FRCM in masonry structures made of stone, brick, and tuff in interventions for static and seismic improvement.

MATRIX GSFix is part of the MATRIX PROTECT FRCM system for reinforcing masonry structures made of stone, brick, and tuff using the low-thickness fiber-reinforced plastering FRCM technique. The MATRIX PROTECT FRCM system includes the galvanized steel fabric MATRIX GSNet, the mortar based on natural hydraulic lime NHL 3.5 CALCESTRUTTURA FINO, and the connection system MATRIX ELISTEEL with stainless steel helical bars with dry insertion, or MATRIX GSFix with high-strength galvanized steel flakes with embedding in natural hydraulic lime mortar from the CALCESTRUTTURA MI line or organic-based chemical anchor SISMACAST VE.

Available in rolls of 25 linear meters with a height of 100 mm.

PREPARATION OF THE SUPPORT

Demolition of the existing plaster down to the bare surface of the masonry wall, with the removal of decayed or incoherent parts, scarification of the bedding joints, sealing, and repointing of any existing cracks; Cleaning of the surface, possible application of the cortical consolidating fixative Premier Consolidante P1; reconstruction of missing or particularly damaged masonry portions, in order to restore the structural continuity of the element; Leveling of the surface with mortars from the Premier CALCESTRUTTURA IM15 line, if necessary. Washing and wetting of the surface until saturation.

DIFFUSED REINFORCEMENT OF MASONRY STRUCTURES

On a water-saturated support but with a dry surface, apply a first layer of medium thickness equal to 5 mm using natural hydraulic lime mortar NHL 3.5 PREMIER CALCESTRUTTURA FINO. Installation of the PREMIER MATRIX GSNet fabric, partially embedding it in the fresh mortar of the layer just applied.

For cutting the fabric to size, use shears, construction cutters, or an angle grinder, taking into account an overlap length L_s of the mesh strips of at least 30 cm in order to ensure the transfer of mechanical stresses.

Execution of holes (diam. 26 mm) in a number not less than $4/m^2$, passing through intervention on both faces, or to a depth of $2/3$ of the masonry for application on a single face, to be preferably carried out with rotary tools.

Cleaning of the hole and insertion of high-strength steel fiber tie connectors PREMIER GSFix of variable length depending on the thickness of the masonry, and filling the hole with lime-based flowable mortar PREMIER CALCESTRUTTURA MI (alternatively, an organic matrix anchor PREMIER SISMACAST VE may be used).

On the previous layer still damp and not hardened, apply a second layer of lime-based mortar CALCESTRUTTURA FINO with a trowel or machine until the design thickness of 10 mm is reached, excluding the leveling of the substrate.



ADVANTAGES – FIELD OF APPLICATION

- Rapidity and ease of application;
- Specific for reinforcement consolidation for bending and shear;
- Suitable for the execution of openings or wraps;
- Suitable for creating reinforcement elements on vaults and arches;
- Suitable for the realization of anchoring ties fixed with injection mortar;
- High durability;
- Compatible with all substrates: the substrate matrix should be evaluated to distinguish between organic or inorganic matrix; - Usable with both lime-based and cement-based mortars.

STORAGE

Store in a dry place for 12 months and protected from direct solar radiation.

All the info at www.premierpremiscelati.it



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STRUCTURAL REHABILITATION, RESTORATION AND GREEN BUILDING MATRIX GSFIX

CHARACTERISTIC DATA

Geometric and mechanical characteristics	
Weight of steel fabric	790 g/m ²
Threads per cm	1.60
Equivalent thickness per unit length	0.1006 mm
Resistant area per unit length	106.76 mm ² /m
Characteristic maximum load of the fabric	≥ 22.86 KN/10cm
Characteristic breaking load of the strand	≥1345 N
Mechanical tensile strength of the strand	≥3000MPa
Elastic modulus of the strand	≥190GPa
Elongation of the strand	≥1.0%

WARNINGS

Product intended for professional use. Check the integrity of the packaging before use and do not use the product if it is not perfectly packaged. In particular, do not use a product that appears to have been crushed or subjected to tension. The customer is required to verify that the product is suitable for the intended use and to ensure that this technical document is valid and not superseded by subsequent updates. During handling and application, wear protective clothing, goggles, and gloves. The updated technical documents are available on the website www.premierpremiscelati.it.

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