



Preformed GFRP composite mesh for concrete reinforcement

Preformed GFRP mesh with very high resistance and durability composed of bars made with continuous ECR glass fibers impregnated with thermosetting epoxy resin. ARMORCRETE NET is available with different mesh light solutions and with different bar diameters. Its construction geometry involves the coupling of pultruded warp and weft bars fixed in the nodes with sewing thread to obtain non-deformable square meshes with high net light without areas of weakening of the node. The ARMORCRETE system is used as a replacement for the usual metal armor for the cortical reconstruction of reinforced concrete elements, consolidation of load-bearing or infill masonry panels, reinforcement of floors, reinforcement of vaults by virtue of its mechanical properties, lightness and its chemical-physical properties. It can be used both with the CRM technique for reinforced plaster interventions, with sprayed mortar, and for casting in formwork. The ARMORCRETE system has an ETA (European Technical Assessment).

#### BASE PREPARATION

Demolizione della parte di matrice ammalorata esistente sino alla messa a nudo  
Demolition of the existing damaged matrix part until the surface of the support on which the reinforcement matrix will be applied is exposed. In the case of masonry facing, plaster and loose or inconsistent parts will be removed, the bedding joints will be scarified, any existing lesions will be sealed and patched; in the case of concrete elements, all inconsistent parts or parts characterized by carbonation degradation will be removed until a solid and coherent support is achieved that guarantees the necessary resistance to tearing.

In any case, cleaning of the surface is planned, possible application of Premier Consolidante P1 cortical consolidating fixative; reconstruction of missing or particularly damaged wall portions, in order to restore the structural continuity of the element.

Before applying the matrix, the surface should be washed and wetted until saturated.

#### POSITIONING OF MESH AND CONNECTORS

ARMORCRETE NET 33X33\_3 allows you to operate by previously fixing the mesh to the support with specific connectors in GFRP Premier SISMABAR 08.

Whether you proceed with the CRM technique or with the casting in formwork, position ARMORCRETE NET 33X33\_3 in the correct position foreseen by the project stratigraphy by fixing it on the L-shaped connectors previously inserted and made integral with the support with the Premier SISMACAST EP or SISMACAST VE resin based on the required mechanics.

The mesh must be laid as flat as possible, avoiding folds and bulges. Between one element of the mesh and another, provide an overlap of at least 20 cm. Once the mesh has been fixed, you can proceed with the mechanical application of the reinforcement product foreseen for the specific application or proceed with the formwork and subsequent filling with compensated-shrinkage pourable mortars. The mesh size of ARMORCRETE NET allows for the direct machine application of concrete repair grouts or certified mortars with high mechanical performance provided in the Premier range.

In any case, the reinforcement layer must continuously cover ARMORCRETE NET which must be perfectly incorporated into the product itself.



#### USE

- Medium/high thickness widespread reinforcement interventions of concrete or masonry structures;
- Static and seismic adaptation and improvement of vertical and horizontal structural elements;
- Cortical reconstruction of concrete walls in canals, tunnels, retaining walls, etc.
- Anti-overturning and anti-collapsing interventions of lightweight brick elements.

#### ADVANTAGES

- Quick and easy to apply;
- Lightness and resistance in reduced thicknesses;
- Excellent mechanical characteristics;
- Easy to cut;
- Use in aggressive environments including saline;
- Durability;
- Compatible with all supports: concrete, stone, brick and tuff;

#### STORAGE

Store in a dry place for 12 months and away from direct sunlight.

All the info on [www.premierpremiscelati.it](http://www.premierpremiscelati.it)

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CONCRETE RESTORATION AND REINFORCEMENT | ARMORCRETE NET

**Dimensions**

Longitudinal and transversal bar diameter	3 mm
Mesh	33x33 mm
Weight of sized fabric	830±5 g/m <sup>2</sup>
Roll width	2,00 m
Roll length	10-20-50-100 m
Panels	2,4x3,0 m

**Mechanical characteristics**

	WARP	WEFT
Nominal section of weft bar	7,07 mm <sup>2</sup>	7,07 mm <sup>2</sup>
Breaking load per linear meter, average	179,2 kN/m	185,8 kN/m
Breaking load per linear meter, characteristic	155,4 kN/m	159,5 kN/m
Breaking load per single bar, average	5,97 kN	6,19 kN
Breaking load per single bar, characteristic	5,18 kN	5,31 kN
Tensile strength, average	845 MPa	876 MPa
Tensile strength, characteristic	733 MPa	752 MPa
Average elastic modulus	40,50 GPa	43,60 GPa
Average elongation	2,29%	2,24%

**Chemical and physical characteristics**

Type of yarn	Continuous glass fiber ECR
Sizing	Epoxy resin
Use temperature	-20°/+90 °C
Thermal conductivity	0,35 W/m°C
Corrosion resistance	Non corrodibile
Electrical conductivity	Dielectric
Environmental compatibility	Non-toxic

**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 has been crushed or subjected to traction. 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. Wear protective clothing, glasses and gloves during handling and application. The updated technical documents can be found on the website [www.premierpremiscelati.it](http://www.premierpremiscelati.it).

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