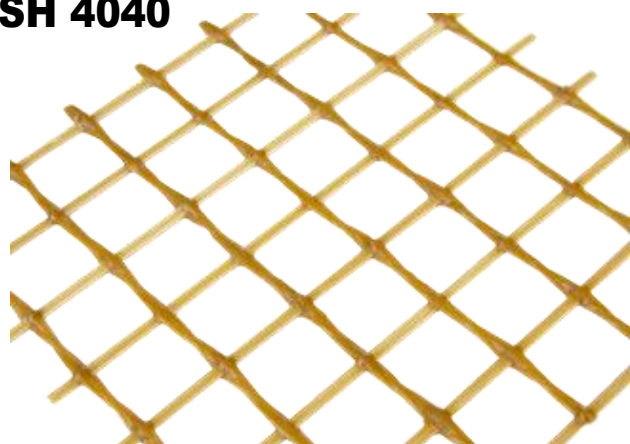


# HERCUNET

## GFRP STRUCTURAL MESH 4040



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### 1. DATA AND DOCUMENTATION

Code	Description	Measurements (m)	Weight	Colour	Pkg. / Pallet
RET03-40440	Hercunet - Structural Network 4040	2,0 x 20,0	980 g/m2	gold	40 m <sup>2</sup> / - m <sup>2</sup>
RET03-40440/A	Hercunet Corner - Structural Net 4040	1	980 g/m2	gold	- m / - m
RET03-40440/F	Hercunet Handkerchief - Structural Net 4040	16 cm x 16 cm	980 g/m2	gold	- pcs / - pcs

#### MATERIAL

Made of alkali-resistant GFRP (Glass Fibre Reinforced Polymer), composite mesh and 980 g/m<sup>2</sup>.

### TECHNICAL DATA

#### GEOMETRIC CHARACTERISTICS

Mesh: 40 x 40 mm  
 No. of bars Warp: 25  
 No. plot bars: 25  
 Average net thickness: 4 mm  
 Nominal single bar cross-section: 10 mm<sup>2</sup>  
 Nominal fibre area: 5.7 mm<sup>2</sup>

#### MECHANICAL CHARACTERISTICS MESH

Weft-Weave Load: 4.5 kN  
 Maximum Load: 112.5 kN/m  
 Elastic Modulus: 23 GPa  
 Average tensile and bar axial stiffness: 230 kN  
 Average tensile and fibre axial stiffness: 131.1 kN  
 Elongation at break: 1.50 %  
 Weight: 980 g/m<sup>2</sup>

#### CHEMICAL-PHYSICAL CHARACTERISTICS

Fibre cross-section: 24-34 µm  
 Thermosetting resin: epoxy Resin  
 density: 1.15 - 1.25 g/ml  
 Fibre/resin weight ratio: 80/20 %  
 Packaging: 20 m roll, height 2 m.

# HERCUNET (INTERSECTION 40 x 40 - 980 GR)

**CHARACTERISTICS** The mesh is ideal for the consolidation and structural reinforcement of masonry, stone and tuff structural elements for static or seismic improvement and retrofitting.  
 Concrete and reinforced screeds.  
 Versatile: can optionally be applied with different inorganic natural hydraulic lime NHL 5 or traditional matrices. Restoration: special attention is paid to its combination with inorganic natural hydraulic lime NHL 5 matrix, making it a reinforcement and consolidation system for structures subject to superintendence constraints and for all artistic and cultural heritage where the use of materials compatible with those of the period is essential.  
 The BIO FORCE ONE natural hydraulic lime matrix is able to reinforce without altering the system's breathability and thermo-hygrometric equilibrium.  
 Reversibility: systems that are easy to remove and thus restore pre-consolidation conditions to existing structures.  
 Resistant: high technical performance of resistance and load bearing.  
 Easy: extremely simple installation following a few simple steps.

## 2. USE and INSTALLATION

Specifically for the in-plane and out-of-plane bending and shear reinforcement of structural elements. Hooping and banding.

Innovative floor stiffeners and reinforced kerbs.

Particular use for the extra-/intra-ossal reinforcement of masonry and/or stone vaults and arches.

Collaborating screeds and castings.

Masonry elements of brick, stone, mixed masonry stone and tuff. Evaluation of the most suitable matrix depending on the type of substrate.

### Laying

Before proceeding with the application of the reinforcement system, the substrate must be cleaned and properly prepared.

Without connections:

Once the substrate has been properly prepared, proceed with applying the first layer of inorganic matrix (BIO FORCE ONE) according to the type chosen as per the project specifications.

Application of HERCUNET reinforcement mesh.

Application of the second layer of inorganic matrix (BIO FORCE ONE).

With connections:

Application of connectors (Helikon helical bars) or washer and dowel in anti-cracking applications. Application of HERCUNET reinforcement mesh and HERCUNET mesh gussets at the connectors. Application of the inorganic matrix layer (BIO FORCE ONE).

## 3. SPECIFICATION ITEMS

Entry	Description	U.M.	Price
<b>Dak.B.RET03.40440x</b>	Supply and installation of GFRP (Glass Fibre Reinforced Polymer) AR Mesh and accessories for structural reinforcement of brick, stone, tuff, limestone, flooring, floors and vaults. The net is a rectangular mesh measuring 40 x 40 mm, produced using Pullweaving technology, consisting of glass fibre and thermosetting epoxy resin, woven with twisted warp and flat weft inserted in warp, with 25 warp bars per metre, average tensile modulus 23 GPa, tensile strength of single bar 4.5 kN, elongation at break 1.5%.		
<b>Dak.B.RET03.40440</b>	Hercunet 40 x 40 net.....	m <sup>2</sup>	-
<b>Dak.B.RET03.40440/A</b>	Hercunet Mesh Corner 40 x 40.....	m	-
<b>Dak.B.RET03.40440/F</b>	Hercunet Net Handkerchief 40 x 40.....	pc.	-

## 4. FURTHER ADVICE

- Product for professional use.
- Do not modify the product.
- Store the product in a dry place, in the original unopened packaging.
- Consult the safety data sheet before using the product.
- The data given correspond to the technical and application knowledge in our possession for an appropriate use of the product, therefore we recommend that a prior practical test be carried out in order to check the suitability of the product for its intended use and consumption.
- Protect surfaces from weathering, sun, wind, rain and frost.
- Since our company is not the executor of the works and cannot directly intervene in the conditions of the sites and the manner in which the works are

carried out, these indications are to be considered indicative and general in nature, and therefore not binding on it.  
• Always refer to the updated versions of the data sheets available at [www.dakota.eu](http://www.dakota.eu).