GREEN TERRAMESH® SYSTEM
POLIMAC® COATED

Green Terramesh® system is an environmentally friendly modular system used for reinforced soil structures. The Green Terramesh® unit is fabricated from double twist hexagonal woven steel wire mesh 8x10 type, made of GalMac® (Zn95%-Al5% alloy) and PoliMac® coated steel wire. The management and production system is certified in compliance with standards ISO 9001 and ISO 14001 (environmental management system).
Green Terramesh® units are pre-assembled and fabricated from double twist wire mesh, an erosion control blanket, a welded mesh panel, and 2 pre-formed steel brackets to support the unit at the required slope angle during backfilling operations.
The external face, reinforcing panel and top return are a continuous woven mesh panel.
Dimensions, tolerances, and sizes are shown in Table 1.

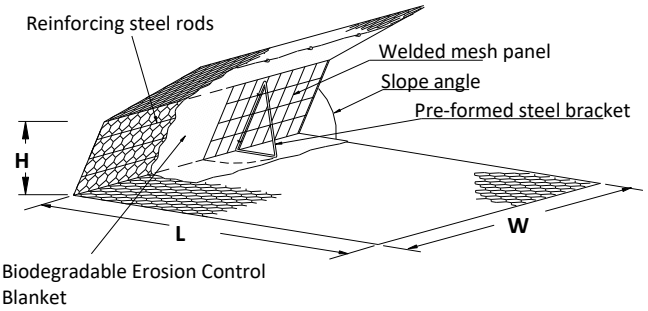

Figure 1

Steel wire mesh
The nominal tensile strength of the wire mesh is as per Table 2; test carried out as per EN 10223-3:2013.
The punch strength of the wire mesh is as per table 2; test carried out as per UNI 11437 and ISO 17746.
When the mesh is tested at 50% of the nominal tensile strength in accordance with EN 10223-3:2013, the wires will not show cracks in the organic coating within the double twist.

The tolerance on the mesh size 'M' being the distance between the axis of two consecutive twists, is according to EN 10223-3: 2013

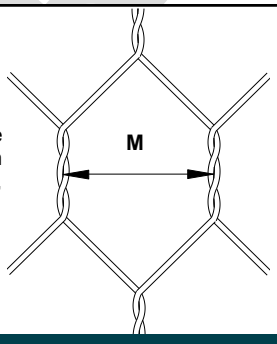

Figure 2

Wire
The steel wire used in the manufacture of the unit is galvanized with GalMac®, a Zn95%-Al5% alloy.
A PoliMac® coating with a nominal thickness of 0.50 mm is then applied to provide added protection for use in hydraulic works, polluted environments or wherever the risk of corrosion is present. The standard specifications of mesh-wire are shown in Tables 2 and 3.
All tests on wire must be performed prior to manufacturing the mesh.

1. **Tensile strength:** the wire used for the manufacture of gabions shall have a tensile strength between 350-550 N/mm^2 as per EN10223-3:2013. Wire tolerances (Table 3) are in accordance with EN10218 (Class T1).
2. **Elongation:** Elongation at fracture not less than 8%, as per EN 10223-3: 2013.
3. **GalMac® coating:** minimum quantities of GalMac® (Table 3) meet the requirements of EN10244-2 (Table 2 - Class A).
4. **Adhesion of GalMac®:** the adhesion of the GalMac® coating to the wire must be in accordance with EN 10244.
5. **Accelerated aging test:** when subjected to test in sulphur dioxide environment (EN ISO 6988) after 28 cycles of discontinuous test, the mesh does not show more than 5% of DBR (Dark Brown Rust).

PoliMac® coating
The technical characteristics and the ageing resistance of the PoliMac® coating comply with EN 10245-1.
Colour: grey RAL 7012.
Resistance to UV radiation: the tensile strength and elongation at break of the base compound after 2500 hours of exposure to QUV-A (ISO 4892-3 mode 1) does not change more than 25% from the initial test results.
Chemical resistance: the PoliMac® resists the chemical agents in concentrations that are representative of soil and water normally found in civil works.
Accelerated ageing test in salt spray: when the PoliMac® coated wire mesh is subjected to the neutral salt spray test (ISO 9227) after 6000 hours of exposure the mesh does not show more than 5% of DBR (Dark Brown Rust).
Resistance to abrasion: the PoliMac® coating does not expose metal wire when tested in accordance with procedure described in par. 4.1.2.1 of EN 60229:2008, after 100,000 cycles with a vertical force of the steel angle of 20N.

Table 1: Sizes of Green Terramesh

Length (m) *		Width (m)	Height (m) / Slope Angle °
Green Terramesh	Green Terramesh Light		
2.0	2.0	2	0.61 / (70°)
3.0	3.0		0.56 / (60°)

All sizes and dimensions are nominal.
Tolerances of ±5% shall be permitted (EN 10223-3:2013).
* **Paralink or Paragrid geogrids can be used in combination with Terramesh where longer and stronger soil reinforcement is required.**

Table 2: Standard mesh-wire

Type	M (mm)	Tolerance (mm)	Wire diameter (mm)	Mesh Tensile Strength (kN/m)	Mesh Punching Load (kN)
8x10 Light	80	-0/+10	2.20/3.20	40 ± 5	41 ± 5
8x10	80	-0/+10	2.70/3.70	55 ± 5	70 ± 5

Table 3: Standard wire diameters

		Mesh wire	Selvedge wire	Lacing wire
Wire diameter	mm	2.20 2.70	2.70 3.40	2.20
Wire tolerance	(±) mm	0.06	0.06 (2.70) 0.07 (3.40)	0.06
Min. GalMac® quantity	g/m^2	230 (2.20) 245 (2.70)	245 (2.70) 265 (3.40)	230

Lacing Operations

Lacing operations can be made by using the tools shown in Fig.4. Stainless steel (INOX) rings having the following specification can be used instead of lacing wire (Figs. 3, 5):

- Steel type: AISI302 - AISI 304 - AISI 316
- diameter: 3.00 mm
- tensile strength: 1550 - 1745 MPa
- Pull-apart strength > 2.0 kN

Spacing of the rings shall not exceed 150 mm (Fig.3)

Quantity Request

When requesting a quote, please specify:
• size and type of units (length, width, height, slope), see Fig.1,
• type of mesh and wire coating

EXAMPLE: No. 100 Green Terramesh® 3x2x0.61m - 70°- Mesh type 8x10 - Wire 2.70/3.70mm. GalMac® and PoliMac® coated

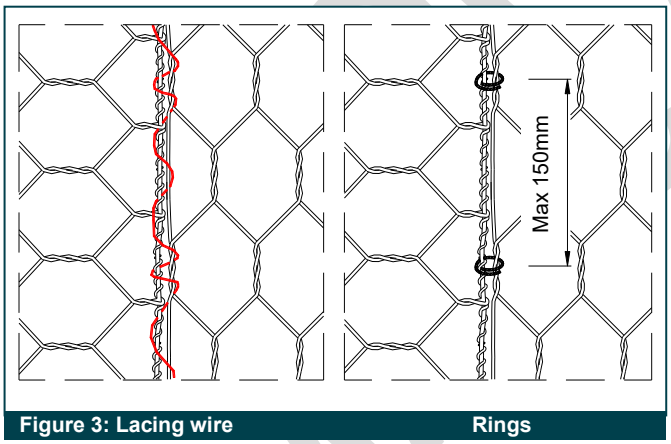

Figure 3: Lacing wire Rings

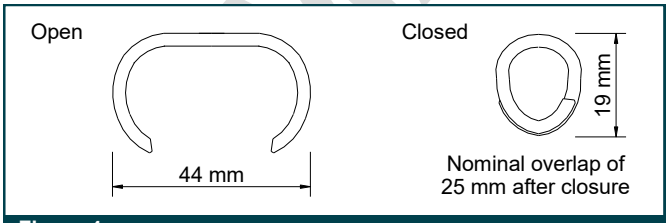

Figure 4

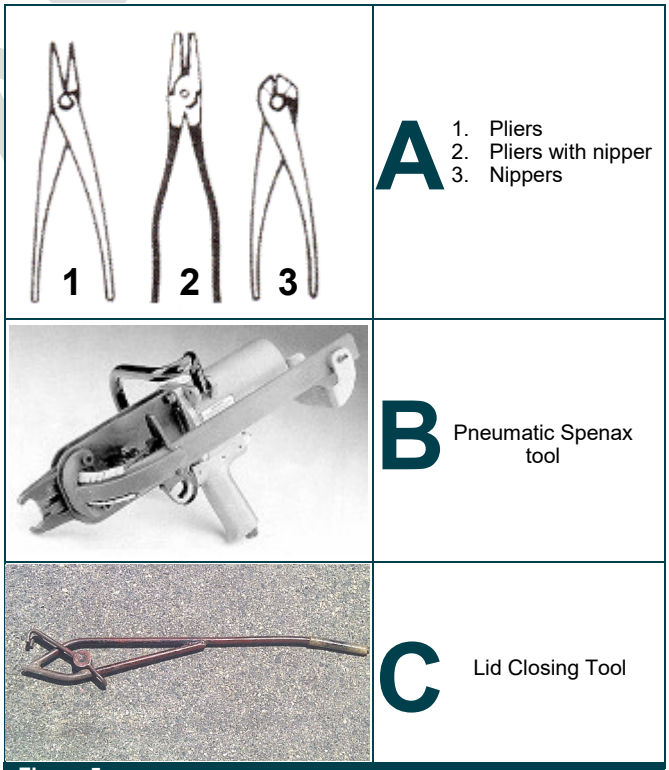

Figure 5