

GREEN TERRAMESH® GALFAN & PLASTIC COATED

The Green Terramesh® is an environmentally friendly modular system used for soil reinforcement such as mechanically stabilized embankments (Fig. 3). Green Terramesh® are assembled units made of double twisted wire mesh 8x10, a geosynthetic or biodegradable erosion control blanket, a welded mesh panel, 2 pre-formed steel brackets (Fig. 1). The units is also provided with n.4 steel loose tie rods to be connected at the job site. The Green Terramesh® main unit is fabricated from soft tensile, heavily galvanized with Galfan (Zn-Al5%-MM mischmetal alloy), and polymer coated (PVC) steel wire. Attached to the inside facing is a geosynthetic three-dimensional 8 mm geomat (Green Terramesh® "Water" type) or woven polyester fabric combined with a micro-nonwoven polypropylene geotextile (Green Terramesh® "Soil" type). Two steel brackets, having a diameter of 8 mm, are used to pre-form to the required slope angle.

Dimensions, tolerances, and sizes are shown in Table 1.

Wire

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 380-550 N/mm² exceeding, in order to increase the tensile resistance of the finished products, what is suggested from EN 10223-3. Wire tolerances (Table 4) are in accordance with EN 10218 (Class T1).
2. **Elongation:** Elongation shall not be less than 10%, according to EN 10223-3. Test must be carried out on a sample at least 25 cm long.
3. **Galfan coating:** minimum quantities of Galfan shown at Table 4 meet the requirements of EN 10244-2 (Table 2 and Class A).
4. **Adhesion of Galfan:** the adhesion of the Galfan coating to the wire shall be such that, when the wire is wrapped six turns around a mandrel having four times the diameter of the wire, it does not flake or crack when rubbing it with the bare fingers.

P.V.C. (Polyvinyl Chloride) Coating

The technical characteristics and the resistance of the PVC to ageing meet the relevant standards. The main values for the PVC material, according to EN 10245-2, are as follows:

Specific weight: 1.30-1.35 kg/dm³ in accordance with ISO 1183;

Hardness: between 50 and 60 Shore D, according to ISO 868

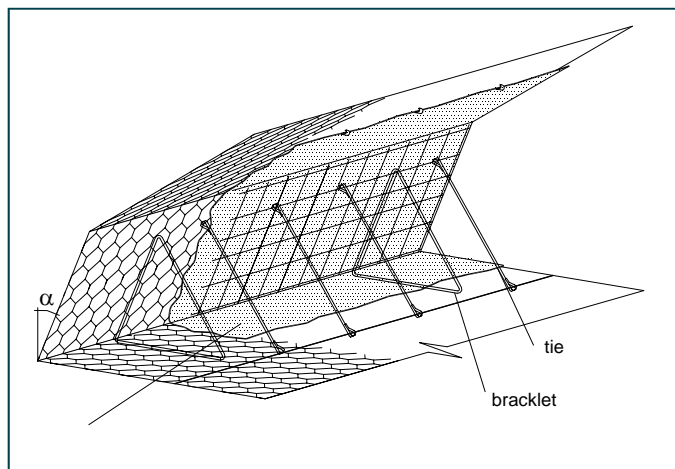
Tensile strength: higher than 21N/mm², according to ISO 527

Elongation at break: not less than 200%, in accordance with ISO 527;

Colour: grey-RAL 7037

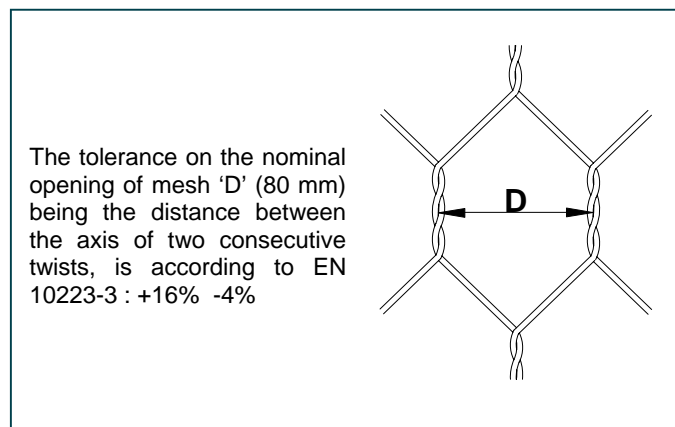
UV stabilized

Outwearing accelerated aging test in SO₂ (28 cycles) in accordance with EN ISO 6988.



Geomat for Green Terramesh® Water type, or woven polyester fabric combined with a micro-nonwoven polypropylene, for Green Terramesh® Soil type

Figure 1



The tolerance on the nominal opening of mesh 'D' (80 mm) being the distance between the axis of two consecutive twists, is according to EN 10223-3 : +16% -4%

Figure 2

L=Length (m)		W=Width (m)	H=Height (m) / (slope angle °)
Green Terramesh	Green Terramesh Light		
-	2.0	3	0.76 / (70°)
-	2.5		0.73 / (65°)
3.0	3.0		0.70 / (60°)
-	3.5		0.58 / (45°)
4.0	4.0		
5.0	-		
6.0	-		

All sizes and dimensions are nominal. Tolerances of ±5% of the weight, height and length of the Green Terramesh shall be permitted. Other sizes available on demand.

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Lacing Operations

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

- diameter: 3.00 mm
- tensile strength: 170 kg/mm²

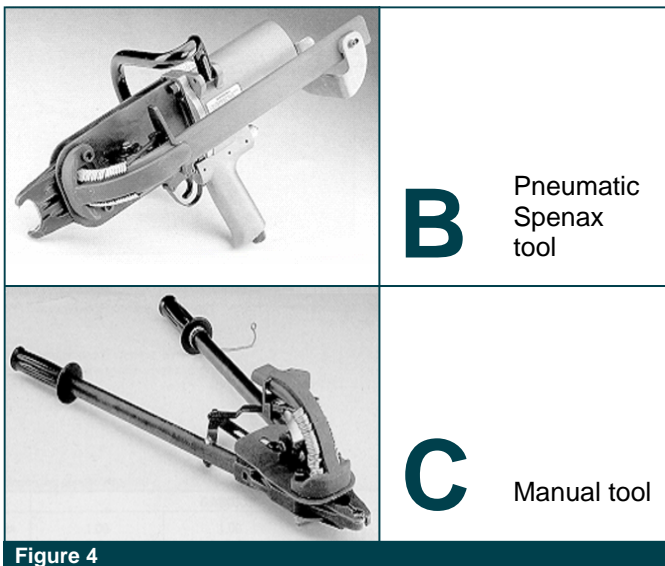


Figure 4

Unit type	Mesh type	D (mm)	Internal mesh Ø (mm)	External mesh Ø (mm)
Green Terramesh Light	8x10	80	2.20	3.20
Green Terramesh	8x10	80	2.70	3.70

	Mesh Wire (Ø mm)	Selvedge Wire (Ø mm)
Green Terramesh Light	Int.2.2/Ext.3.2	Int.2.7/Ext.3.7
Green Terramesh	Int.2.7/Ext.3.7	Int.3.4/Ext.4.4

Internal Wire diameter	mm	2.20	2.70	3.40
Wire tolerance	(±) Ø mm	0.06	0.06	0.07
Min.Q.ty of Galfan	gr/m ²	230	245	265

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® 4x3x0.73m - 65°-Mesh type 8x10-Wire 2.7/3.7 mm-Galfan + PVC coated

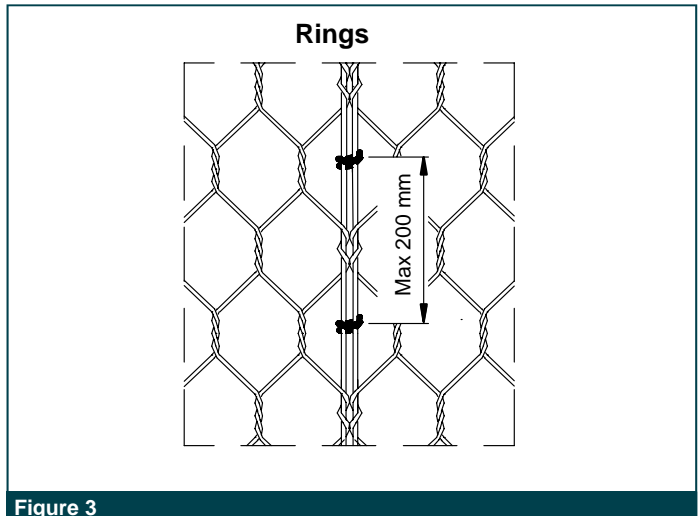


Figure 3

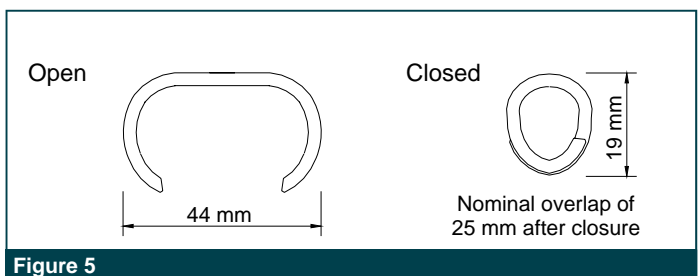


Figure 5

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