

ROCKFALL PROTECTION NETTING

GALMAC COATED

TECHNICAL DATA SHEET - Rev. 05, Date 01-12-2011

Rockfall netting is a passive drapery system made of hexagonal double twisted wire mesh. The double twist configuration ensures that the steel wire mesh can withstand the force of falling rocks without unravelling in the event of wire breakage.

Passive systems are those which do not affect the process of the rock detachment, but rather focus on containing and intercepting falling and sliding debris, thereby averting danger to infrastructure and its users. The Rockfall netting is anchored at the top of the slope and is either secured or unsecured at the toe, depending on the project requirements. Standard roll sizes of Galmac coated Rockfall netting are shown in Table 1.

Steel wire mesh

The double twisted steel wire mesh used in the production of Rockfall netting has mechanical characteristics higher than those stated in EN 10223-3. The nominal tensile strength of the mesh shall be as per Table 2; test done in accordance with EN 15381, Annex D.

Wire

The steel wire used in the manufacture of Rockfall netting is heavily galvanized with Galmac, a Zn-5%Al alloy. The standard mesh specifications are shown in Table 2.

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, which exceeds the strengths referred to in EN 10223- 3. Wire tolerances (Table 3) are in accordance with EN 10218 (Class T1).
2. **Elongation:** Elongation shall not be less than 10%, in accordance with EN 10223-3. Test must be carried out on a sample at least 25 cm long.
3. **Galmac coating:** minimum quantities of Galmac shown in Table 3 meet the requirements of EN 10244-2 (Table 2 - Class A).
4. **Adhesion of Galmac:** the adhesion of the Galmac coating to the wire shall be such that, when the wire is wrapped six turns around a mandrel four times the diameter of the wire, it does not flake or crack when rubbing it with bare fingers, in compliance with EN 10244.
5. **Outwearing accelerated aging test in SO2:** 28 cycles in accordance with EN ISO 6988.

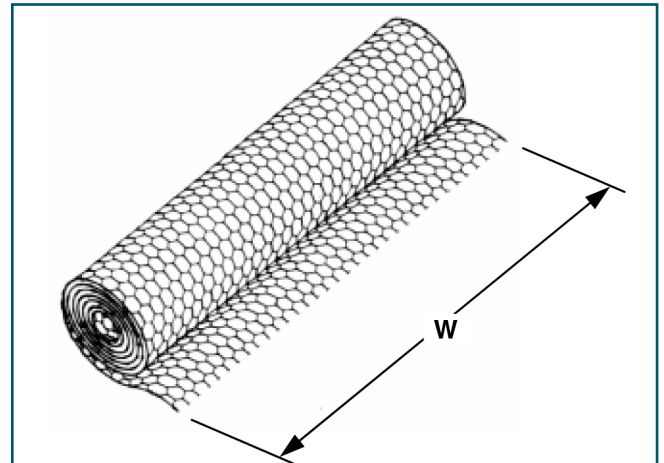


Figure 1

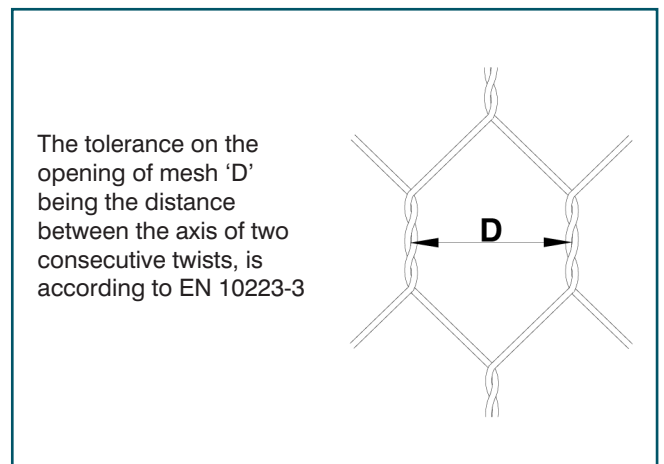


Figure 2



Typical Rockfall Netting Application



Typical Rockfall Netting Application

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Table 1 - Sizes of Rockfall netting rolls

L=Length (m)	W=Width (m)
50	2.00 and 2.86

* Non-standard roll sizes may be available
 All sizes and dimensions are nominal.
 Tolerances of 0/+1 m of the length, and ± D of the width shall be permitted

Lacing Operations

Lacing operations can be made by using the tools shown in Fig.5. Galmac coated steel rings having the following specification can be used as an alternative to lacing wire when Galmac coated Rockfall netting is used (Figs. 3, 4):

- diameter: 3.00 mm, ASTM A975-97, Table 1
- tensile strength: 1380-1660 MPa, ASTM A764, Table 2, Class 1
- coating thickness: 244g/m² ASTM A764, Table 7, Class 3

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

Please contact Geofabrics for detailed installation information

Lacing wire

Rings

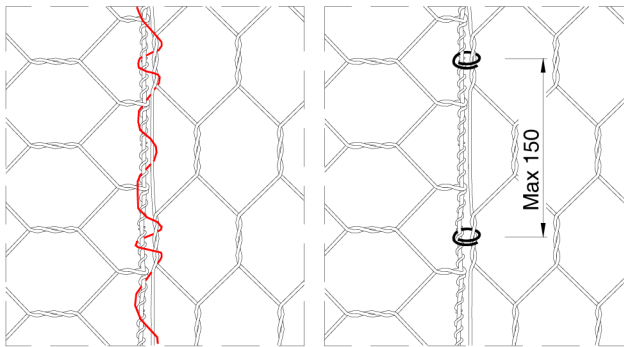
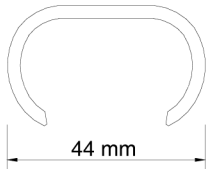


Figure 3

Open



Closed

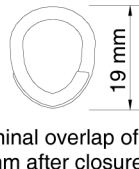


Figure 4

Table 2 - Standard mesh specification

Mesh			Wire Diameter (mm)		
Type	D (mm)	Tolerance	Mesh	Selvedge	Mesh Tensile Strength (kN/m)
8x10	80	+16%/-4%	2.70	3.40	50
			3.00	3.90	60

Table 3 - Standard wire diameters

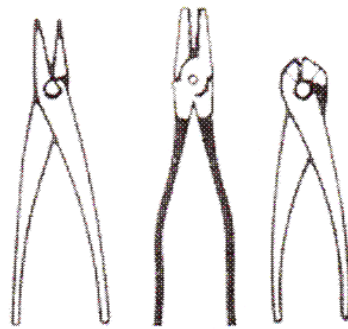
Wire Diameter ø mm	2.20	2.40	2.70	3.00	3.40	3.90
Wire Tolerance (±) ø mm	0.06	0.06	0.06	0.07	0.07	0.07
Min. Quantity of Galmac gr/m ²	230	230	245	255	265	275

Quantity Request

When requesting a supply quotation, please specify:

- size of units (length x width, see Table 1),
- type of mesh,
- type of coating

EXAMPLE: No.100 rolls Length=50m, Width=2.86m - Mesh type 8x10 - Wire diam. 2.70 mm - Galmac coated



A

1. Pliers
2. Pliers with nipper
3. Nipper



B

Pneumatic Lacing tool

Figure 5

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