MACCAFERRI

TECHNICAL DATA SHEET

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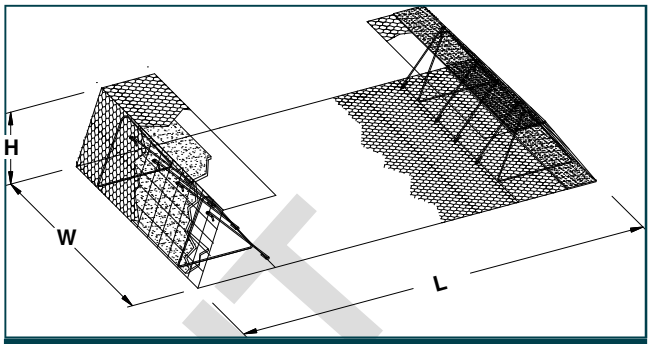
MAC.RO. SYSTEM - ROCKFALL PROTECTION EMBANKMENTS

The rockfall protection embankment is a reinforcement soil structure used to protect infrastructures and roads, located at the foot of natural cliffs, in places where it is not possible a revetment of the whole slope (length or dimension of the wall, presence of vegetation).
The location (distance from the slope), the height and the size of the embankment can be evaluated in relation to the slope morphology, the characteristics of the area and the kinematism of the falling rocks. The structure is assembled with units made of double twisted wire mesh, heavily galvanized with Galmac (Zn - Al 5%), and polymer (self estinguish modified polyethylene) coating steel wire.



Rockfall Protection Embankment scheme


Rockfall Protection Embankment application


Rockfall Protection Embankment terminal

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/mm^2 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. **Galmac coating:** minimum quantities of Galmac shown at Table 4 meet the requirements of EN 10244-2 (Table 2 and 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 having four times the diameter of the wire, it does not flake or crack when rubbing it with the bare fingers, in compliance with EN 10244.
5. **Outwearing accelerated aging test** in a general condensation of moisture containing sulfur dioxide (28 cycles) according to EN ISO 6988 (without showing signs of red rust).

P.V.C. (Polyvinyl Chloride) Coating

The tecnical caracteristics 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/dm^3 according to ISO 1183;
Hardness: between 50 and 60 Shore D, according to ISO 868
Tensile strength: higher than 21N/mm^2, according to ISO 527
Elongation at break: not less than 200%, in accordance with ISO 527;
Colour: grey-RAL 7037
Resistance to UV radiation: After 4000 hours of exposure to UV light according to ISO 4892-2 or ISO 4892-3, the tensile strength and elongation at break can not be more variable than 25%.

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Product Certification BUREAU VERITAS Certification

n° 226/001

Maccaferri reserves the right to amend product specifications without notice and specifiers are requested to check as to the validity of the specifications they are using.

1. Standard Mesh-Wire

Type	D (mm)	Tolerance	Int. Wire Ø (mm)	Ext. Wire Ø (mm)
8x10	80	+16% / -4%	2.20	3.20

2. Standard wire diameters

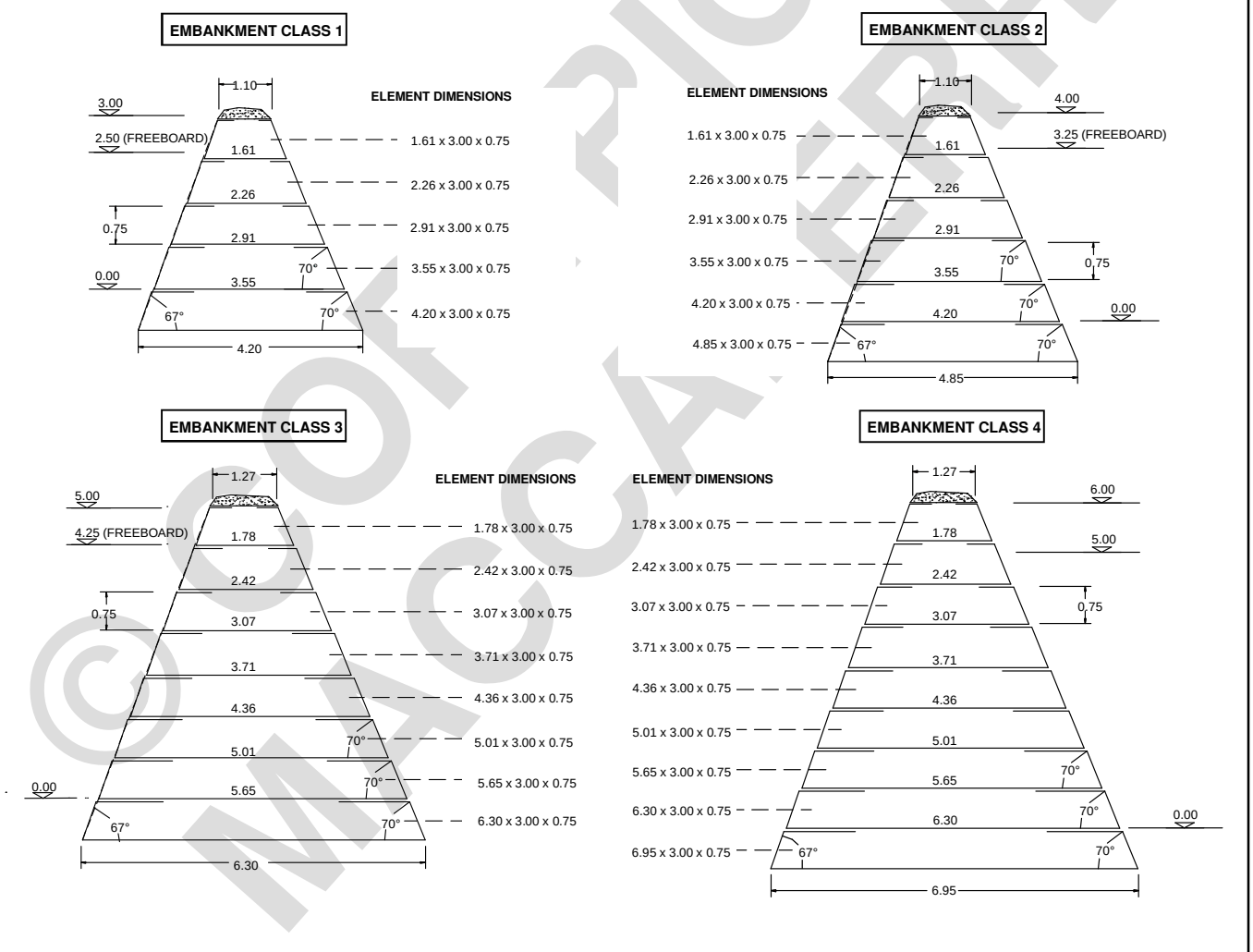
Type	Mesh Wire	Selvedge Wire
8x10 (mm)	Int.2.2/Ext.3.2	Int.2.7/Ext.3.7

3. Table of wire tolerances and coating

Internal Wire diameter	mm	2.20	2.70
Wire tolerance	(±) ø mm	0.06	0.06
Min.Q.ty of Galmac	gr/m²	230	245

4. Table of embankments sizes

Length = L (m)	Width = W (m)	Heigth = H (m)
VARIABLE	3.00	0.75



Rockfall Protection Embankments Classes

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