



METALLIC (& ORGANIC) COATED STEEL WIRE:

- GALVANIZED THIN
- GalMAC®C3 (Zn90 Al10 Alloy A class) and SuperGalMAC®
- PVC
- GaBIARQ® for *gabiette* (muzzles/ *Muselet*) , GALVANIZED (& PAINTED)
- & GALVANIZED (or from other materials) Strips
- Commercial & Reinforced GALVANIZED
- GalMAC®Green (Zn90Al10 Alloy, B class)
- POLIMAC®



A. Bianchini Ingegniero S.A. is specialized in the production of metallic coated wires for several industrial applications.

Wire is produced in low carbon steel with zinc coating or metallic alloyed coated, and are mainly used in armored cable, flexible pipe, DIY and agriculture sectors.



Thin & Extra thin Galvanized Wire

EXTRA THIN GALVANIZED WIRE	
Diameter	From 0,20 mm to 0,55 mm
Zn Coating thickness	Min. 20 g/m ² (class D)
Breaking load	330 - 420 MPa

The main characteristic of the product comes from the Absence of discontinuity in the wires and from an smooth surface finish, brilliant and without lumps



THIN GALVANIZED WIRE	
Diameter	From 0,60 mm to 1.60 mm
Zn Coating thickness	Min 20 to 30 g/m ² (following diameter)
Breaking load	440-540 MPa (Annealed)

Commercial and Reinforced Galvanized wire

Other galvanized wire: produced for the closure segment (simple torsion net, knotted, welded panels, agriculture and vineyard).

A. Bianchini Ingegniero. S.A., Maccaferri group, offer 2 quality grades of galvanized wire:

COMMERCIAL & REINFORCED GALVANIZED WIRE	
Diameter	From 1,60 mm to 5 mm (more than 5 mm only commercial galvanized)
Zn Coating thickness	Min 30 a 70 g/m ² (depending of the diam.; cmmercial) Min 205 a 280 g/m ² (depending of the di.; reinforced)
Breaking load	400-600 MPa (Annealed) 600-1000 MPa (Hard)



Plastified Wire by extrusion

GALVANIZED (Zn or Zn90Al10) & PVC COATED WIRE	
Diameter	From 2,40 mm to 4,1 mm
Yield Strength	400-600 MPa (Annealed)
Breaking load	600-1000 MPa (hard)
Colors	Green RAL 6005 (others colors under request)



Galvanized & pvc coated wire: product made mainly for the industrial closure application (simple torsion net), agriculture, greenhouses and FIY.

Galvanized (and or other materials) Strips

For the cables sector , for flexibles tubes, for sparkling drinks bottles applications, but also for other applications

A. Bianchini Ingegnero S.A. offer galvanized strip, cutted following your needs, and according to the following table (other dimensions , grades, or materials, under request)



NARROW STRIP & EXTRATHIN GALVANIZED DX51 + Z COLD ROLLED PREPAINTED STAINLESS STEEL	
Thicknes	from 0,20 mm to 0,5 mm
Minimum Width	5 mm
Internal Diameter	150 mm – 400 mm – 508 mm



GalMac® C3 Wire, and SuperGalMac®

GalMAC® wire is a metallic coated wire with a high purity zinc (Zn) alloy with 90% of zinc, 10% of aluminum (Al) and Lanthanum (La) and Cerium (Ce) added. The resistance to corrosion provided by this alloy is far superior to that obtained with a traditional reinforced zinc coated steel or Galfan® alloy.

Bianchini proposes 3 types of grades for this metallic coating: GalMAC® C3 (class A), SuperGalMAC® (super reinforced) and GalMAC® Green (class B).

GalMAC® C3 and SuperGalMAC® wire are products reserved for aggressive atmospheric environments (acid rain, industrial and urban pollution), and for Geotechnical solutions. GalMAC® C3 is the evolution of metallic coatings providing greater resistance to corrosion, increasing the life of products, such as gabions, Reno® mattresses, Terramesh® solutions, double torsion nets, Steelgrid® nets for slope protection, or others. such as Gaviarq®, electro-welded gabions also commonly used in architecture and landscaping.

GalMAC® C3 (Zn90Al10 A Class) Wire	
Diameter	from 1,8 mm to 5 mm
Quantity of coated	Min 205 to 280 gr/m ² (depend. the diameter) Min 350 g/m ² in Super Galmac®
Breaking load	380-550 MPa (annealed) / 600 - 1000 MPa

DOUBLE TORSION NETS			
Wire Diameter in mm	Paris Nº	Denomination	Standard sizes
2,00	13	5x7 -13	3x100 m
2,20	14	6x8	4x50 m
2,40	15	8x10-15	4x100 m
2,70	16	8x10-16	4x100 m
3,00	16	8x10-17	4x100 m

GalMAC® WIRE ADVANTAGES

- Low porosity
- Less penetration of oxidizing agents
- To the galvanic protection of the zinc is added the compact layer of aluminum oxide on the surface, isolating the environment
- The high ductility and adhesion of the alloy to the wire allows it to be worked without cracking of the coating.



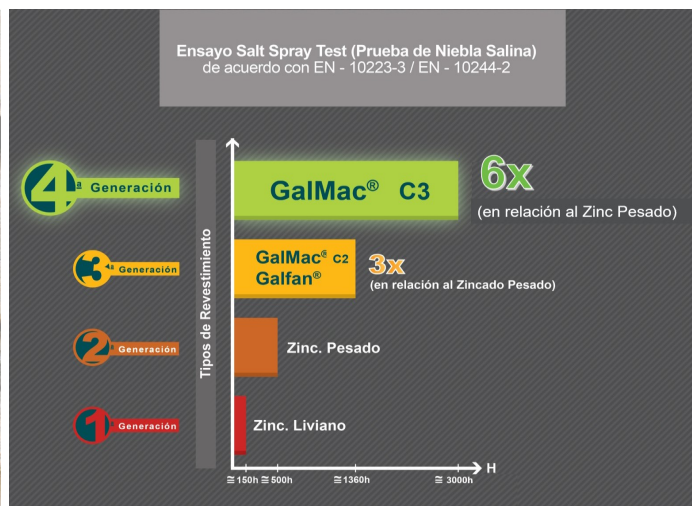
Superamos los 100 años de Durabilidad
Nueva aleación 90% Zn - 10% Al

GalMac® C3

- El Reglamento Europeo (CPR) 305/2011 para productos de la construcción establece que en estructuras permanentes la durabilidad mínima de la estructura debe ser de 50 años.
- En ambiente C3, situación más habitual, con GalMac® C3 garantizamos una vida útil > 50 AÑOS (ISO 9223 EN 20223-3, Anexo I).
- En ambientes más agresivos como C4, C5, o CX, con GalMac® C3 + PoliMac® garantizamos una vida útil > 120 AÑOS (ISO 9223 EN 20223-3, Anexo I).
- Marcamos nuestros productos como garantía de calidad según los criterios de evaluación de conformidad con CE 1301 - CPR - 1229.

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GalMac® C3: Better in performance in terms of corrosion than one class A Galfan® wire, a triple reinforced galvanized wire or than a batch galvanized wire.

Polimac® Wire

The world is changing and environmental conditions are increasingly aggressive. The frequency and severity of exposure is increasing. The technical characteristics of engineering materials must respond to the needs of a changing world.

Hoy en día, gran parte de las soluciones en geotecnia requiere materiales que soporten ambientes cada vez más agresivos e incluso abrasivos en los que se utilizan estos materiales.

These conditions can affect the polymer coating and subsequently damage the steel wire.

To answer to the needs of a world in transformation, **Maccaferri** has developed **PoliMac®**, a new coating for double torsion hexagonal mesh that can achieve the technical performance required in highly demanding hydraulic, geotechnical, erosion control and environmental protection projects.

PoliMac®

El Alambre Resistente para un mundo en transformación

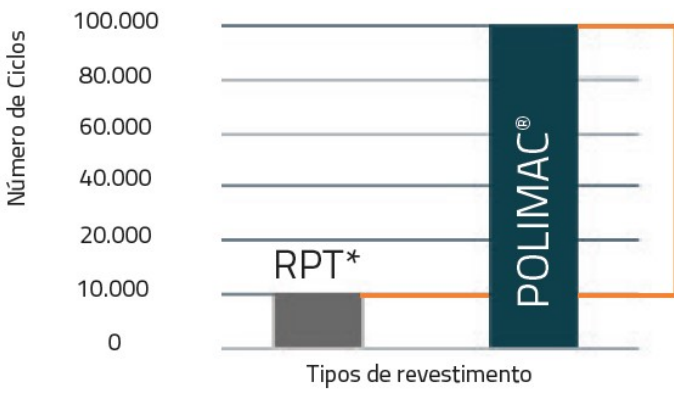
Resistencia a la Abrasión **10x**

Resistencia a Bajas Temperaturas

Resistencia rayos UV

Resistencia a Daños en Instalación

Resistencia Química



*Revestimiento Polimérico Tradicional

The following double torsion products made with **PoliMac®** wire are manufactured under request:

- Gabions
- Reno® Matresses
- Double torsion nets
- MacMat® nets
- Steelgrid® nets
- Terramesh® systems

POLIMAC® WIRE (BY EXTRUSION)	
Diameter	from 2,40 mm to 4,0 mm
Breaking load annealed galvanized	400-600 MPa
Breaking load hard galvanized	600-1000 MPa
Colors	Grey Gabion (PoliMac®)



GalMAC® Green Wire

GalMAC® Green wire is part of the new generation of wires generally used in fencing (simple twist netting, knotting, agriculture, greenhouses, and vineyards). GalMac® Green obtains better performance than a class A Galfan® wire, it resists corrosion 3 times more than a Galvanized (class A) and up to 10 times more than a commercial Galvanized.

GalMAC® Green (Class B Zn90 - Al10) Wire	
Diameter	from 1,8mm to 5 mm
Quantity of coated	Min 100 to 140 g/m ² (depend. of the diameter)
Breaking load	400-600 MPa (annealed) / 600 - 1000 MPa (hard)



STANDARDS

EN 10218-1 Steel wire and metal wire products. General Part 1: Test methods.

EN 10218-2 Steel wire and metallic wire products. General Part 2: Dimensions and Tolerances

EN 10244-1 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Part 1: General principles

EN 10244-2 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Part 2: Coating of zinc or zinc alloys.

EN 10245-1 Steel wires and wire products. Organic coatings on steel wire. Part 1: General rules.

EN 10245-2 Steel wires and wire products. Organic coatings on steel wire. Part 2: PVC coated wire.



AVAILABLE WIRE PRESENTATIONS (Tolerances +/- 10%)							
Type	DIN200	DIN250	FR200	R156	DRUM	400 Coil	600 Coil
Net weight of the reel empty	600 gr	1050 gr	350 gr	1730 gr		Orbit	Orbit
Net weight x reel (coil) in Kg	12-14	19-21	15-17	90-95	250-300	250-450	600-1200
Presentation in pallets de 110 x 110	48 u.	40 u.	48 u.	12 u.	4 u.	1 u.	1 u.
Pallet Net Weight (Kg)	625	800	768	1116	1100	250-450	600-1200
Pallet Gross Weight (Kg)	677	864	810	1155	1150	250-450	600-1200
Dimensions (LxAxH) in mm	920x770x765	1250x100x565	920x770x715	1200x800x600	1100x1100x1010	Di/e: 260/530 H: 650/800	Di/e: 420/800 H: 600/1200

Other presentations, please ask.

Keep always the wire protected from atmospheric agents.

GaBIARQ® Wire: galvanized wire and painted galvanized wire for use in gabbiette ('muzzles' – stoppers) of champagne, prosecco, cava and sparkling beverage bottles.

With more than 20 years of experience manufacturing hot-dip galvanized wire, specially developed for the Champagne, Prosecco, Cava and other sparkling beverages sector.

Produced in coils placed in electro-welded mesh baskets, there is the possibility of supplying various customized colors such as black, gold, white, blue, etc.

- GaBIARQ® is an environmentally friendly wire: free of heavy metals.
- GaBIARQ® wire contains on average more than 50% recycled steel.
- GaBIARQ® complies with the requirements of the European directive RoHS 2002/95/CE and its updates and annexes.
- GaBIARQ® complies with the requirements regarding food contact.
- GaBIARQ® painted, resists washing processes, called "pasteurization"*.

***A. Bianchini Ingegnero S.A. guarantees the performance of the wire in accordance with the technical data sheet of the product**

GaBIARQ®	
GALVANIZED (& PAINTED) WIRE FOR 'MUZZLES'	
Diameter	From 0,95 mm to 1 mm
Quantity of Zn	Min 35 g/m ²
Quantity of organic coated	10-15 µM
Breaking load	320-450 MPa





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Wire and GEOTECHNICAL SOLUTIONS

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