

4<sup>th</sup> Generation Coating for Wire



**MACCAFERRI**

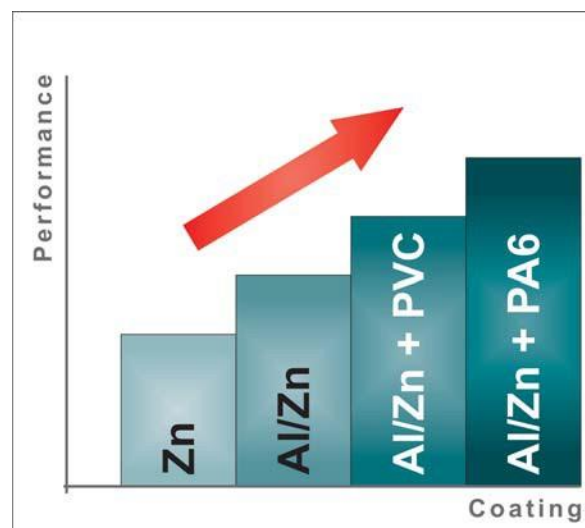
## MACCAFERRI

# Think Maccaferri PA6

### PA6 - High Performance Coating

Maccaferri PA6 is a new and exclusive polyamide polymer, carefully developed for use with gabions, Reno Mattresses<sup>®</sup>, rockfall protection mesh and the soil reinforcement systems, Terramesh<sup>®</sup> and Green Terramesh<sup>®</sup>.

PA6 is the pinnacle of Maccaferri's graded range of coatings. This enables clients to select the protection level that meets their specific project requirements.



### PA6 - An "Eco-Friendly" Coating

Maccaferri PA6 offers significant environmental benefits over traditional PVC coated wire mesh products.

It contains no heavy metals, no phthalates and no ozone depleting chemicals.

### PA6 - OTHER BENEFITS

+ Greater design life	+ Better adhesion to wire
+ More durable	+ Lower creep-corrosion penetration
+ Better long term strength	+ Better resistance to abrasion
+ Better long term elasticity	+ Better low temperature performance

When PVC coated wire mesh products do not offer the toughness, exposure resistance or environmental performance required, use the 4th Generation of coatings; Maccaferri PA6.

Maccaferri PA6 products are manufactured in accordance with EN 10245 5:2011 "Steel wire and wire products

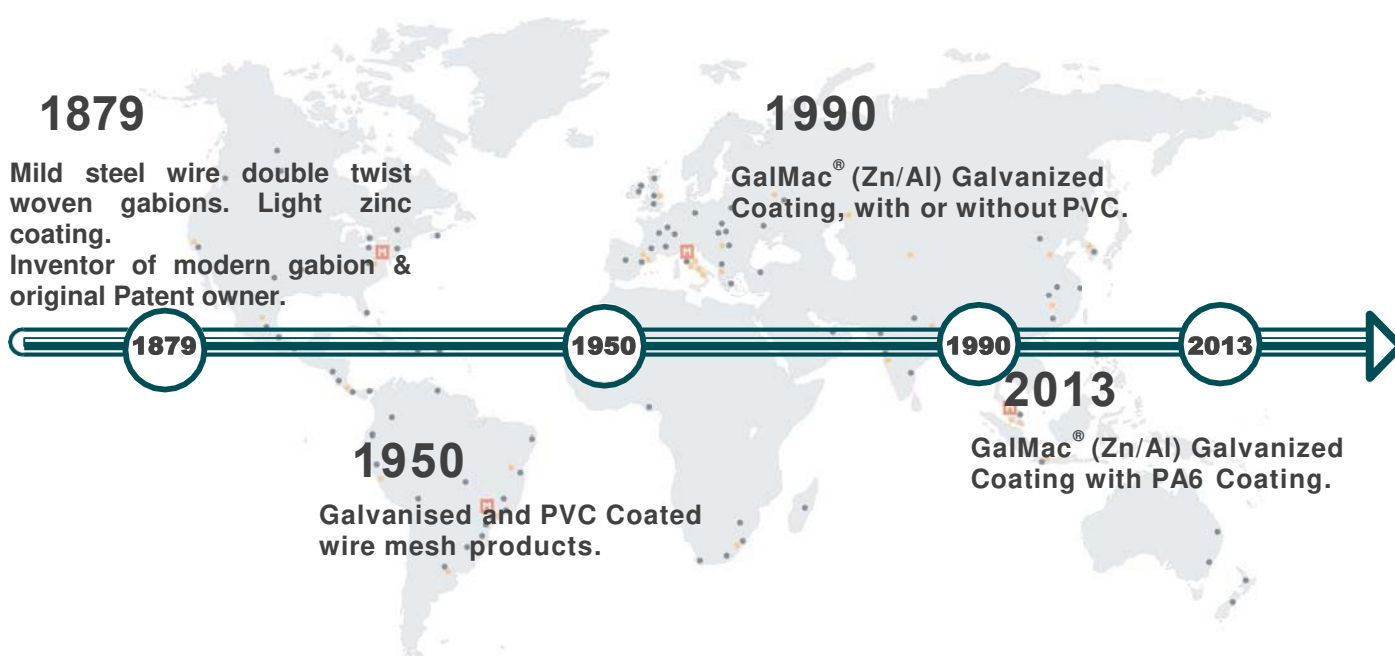
– Organic coatings on steel wire – Part 5: Polyamide coated wire"

## MACCAFERRI

# A new Coating

Maccaferri has a history of innovation, developing products and solutions to meet the technical demands of the engineering and geotechnical market.

Maccaferri's steel wire mesh products are already protected by high quality corrosion protection. Now, for situations where greater environmental or technical performance is required, Maccaferri has added a new coating to the family: Maccaferri PA6.



## ENVIRONMENTAL IMPROVEMENTS



## TECHNICAL IMPROVEMENTS



## MACCAFERRI PA6

Maccaferri PA6 coated products do not replace the existing PVC coated products, but are used when PVC does not offer sufficient protection and design life. The new PA6 coating is available on all traditional Maccaferri products:

gabions, Reno® mattresses and rockfall protection mesh as well as the soil reinforcement systems, Terramesh® and Green Terramesh®.



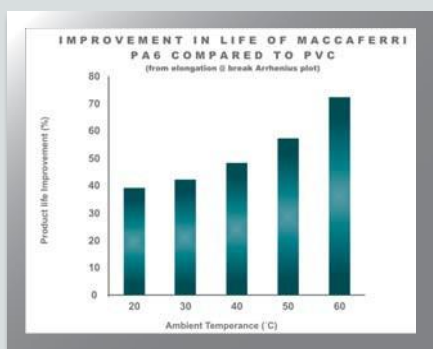
## MACCAFERRI

### Maccaferri PA6

### Compared to PVC

## coatings

#### 30% LONGER DESIGN LIFE



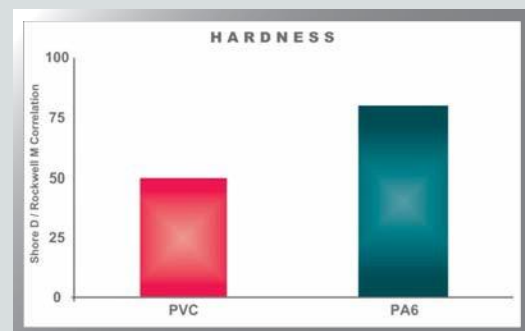
Long term performance is determined by cross-referencing Accelerated Aging Tests with product performance in real life projects. Maccaferri PA6 coated products provide a 30% increase in life compared to a PVC coated product under the same conditions.

Design life assessments are based upon the residual performance of the polymer coating; Maccaferri PA6 retains at least 50% of its mechanical properties after 102 years exposure. Therefore design lives in excess of 120 years are achievable.

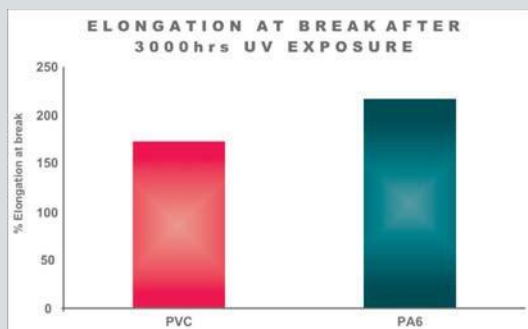
#### 50% HARDER AND MORE DURABLE

Maccaferri PA6 is a polyamide polymer. Its hard and low-friction surface makes it incredibly resistant to mechanical damage. The benefits are:

- + Reduced damage during transportation and installation
- + Increased resistance to installation damage when used in Terramesh<sup>®</sup> and Green Terramesh<sup>®</sup> soil reinforcement
- + Better abrasion and impact resistance in hydraulic structures and rockfall protection



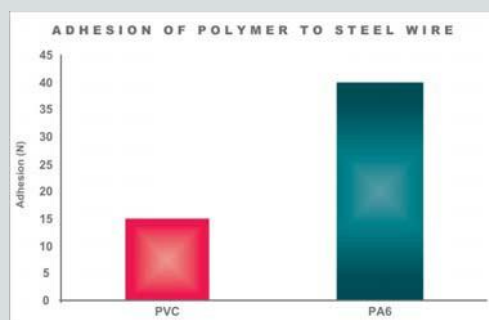
#### 25% MORE ELONGATION AFTER 3000HRS UV TEST



Maccaferri PA6 remains more malleable after 3000hrs UV exposure than PVC. This flexibility enables PA6 to protect the steel wire better over a long design life. The benefits are:

- + Reduced risk of peeling if damaged
- + Maintains protection of wire, even after large wire deformations
- + Improved resistance to tearing of coating under extreme impact

## 3X BETTER ADHESION TO STEEL WIRE



The polymer coating is extruded onto the steel wire during manufacture. Maccaferri PA6 forms a stronger bond to the steel wire than PVC. The benefits are:

- + Reduced potential ingress of pollutants
- + Reduced peeling of coating when damaged
- + Greater resistance to installation damage and longer design life
- + Reduced creep corrosion penetration

# Technical information

## Enhanced Properties

Maccaferri's new PA6 coating is a polyamide polymer, extruded onto the galvanised steel wire, before weaving into the engineering mesh, to deliver products with exceptional environmental and physical performance.

Polyamide 6 is characterised by its optimal mechanical properties; resistance to wear, low friction coefficients, good impact strength and high resistance to fatigue.

## Transformation technology

Polyamides may be easily moulded by means of injection or blowing. Films, sheets, bars, rings and pipes are created through extrusion. Polyamides in powder form are also used as protective coatings and waterproof layers.

## Applications for Polyamide

The versatility of Polyamide and its high physical and mechanical properties allows these resins to be used in various fields of application such as; the automobile industry (for gears, supports, fans etc), the textile, mechanical and electrical industries for household appliances, furniture and agriculture.

## Officine Maccaferri Group Profile

Founded in 1879, Officine Maccaferri soon became a technical reference in the design and development of solutions for erosion control and retaining structures. Since then, through technological innovation, geographical expansion and focussed diversification, Maccaferri now offers solutions at a global level for a wide range of civil and environmental engineering applications.

## Consultancy and Partnership

Maccaferri's motto is 'Engineering a Better Solution'; We do not merely supply products, but work in partnership with our clients, offering technical expertise to deliver versatile, cost effective and environmentally sound solutions. We aim to build mutually beneficial relationships with clients through the quality of our service and solutions.

## Organisational Structure

Officine Maccaferri is at the heart of the Maccaferri Industrial Group. Its continued growth is based upon long-held values of innovation, integrity, excellent service and respect for the environment. Maccaferri's vision is to become a leading international provider of advanced solutions to the civil engineering and construction market. Implementing a strategy of vertical integration, Maccaferri researches, manufactures, designs, supplies and constructs solutions within its target markets.

The capability of the business continues to expand due to a strategic plan to open new markets and grow existing ones; Maccaferri now offers advanced engineered solutions from coastal protection to reinforced soil structures and from rockfall mitigation to tunnelling systems.

With over 2000 employees, 26 manufacturing facilities and local operations in 100 countries around the world, Maccaferri can truly claim to have a global presence with local focus.

**Maccaferri: Engineering a Better Solution**



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Maccaferri  
Industrial  
Group



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