

HIGH PERFORMANCE POLYMER COATING

The infrastructure on which we rely is facing more demanding operating conditions; the frequency and severity of exposure is increasing. International standards already require to identify the environmental conditions at the design stage of a structure, assessing their significance in relation to the design working life of the structure. As a consequence of this, clients are demanding greater resilience, better performance and more value than ever before. This drives the development of superior materials that can respond to these new demands.

Due to the increasing scarcity of natural resources, synthetic materials are now a viable option in solving modern engineering problems, especially within geotechnical, hydraulic, environmental protection and erosion control applications.

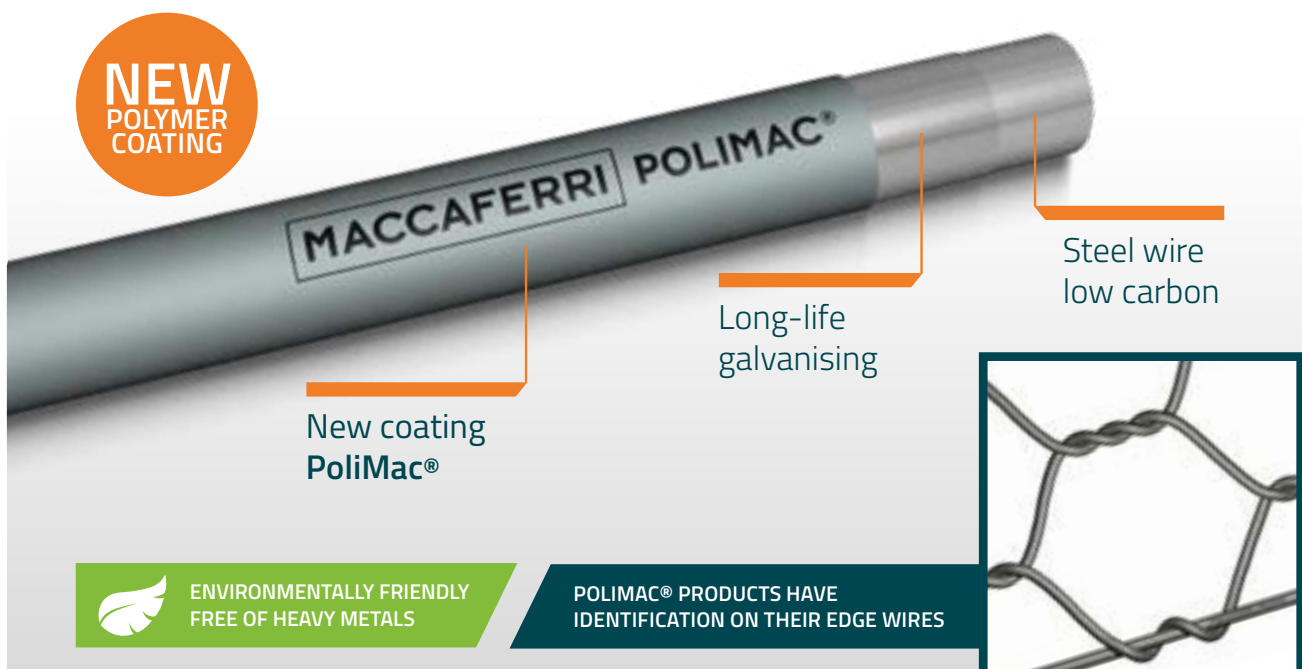
To respond to these needs, Maccaferri has developed **PoliMac®**; a new polymer coating for hexagonal double twist steel wire mesh products. It has been developed to:

- M** Meet environmental project requirements
- M** Achieve the technical performance demands of hydraulic, geotechnical, erosion control and environmental protection projects
- M** Maximise longevity and structural efficiency through increased abrasion and chemical resistance

The new **PoliMac®** coating is an inert polymeric compound which exhibits high abrasion resistance. It is capable of withstanding the most severe application conditions including highly aggressive mechanical and chemical impact, long-term ultraviolet radiation and low temperature effects.

The polymer recipe is exclusive to Maccaferri and has been selected for use within the construction, mining and environmental industries.

Steel wire protected by long-life galvanising with an additional PoliMac® polymeric coating



POLIMAC®

Abrasion resistance tests

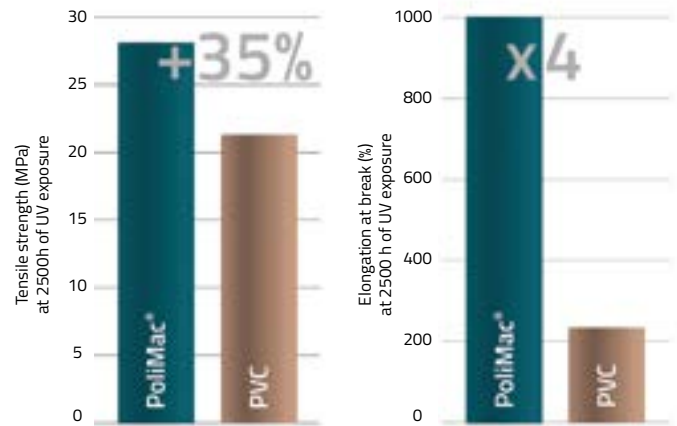
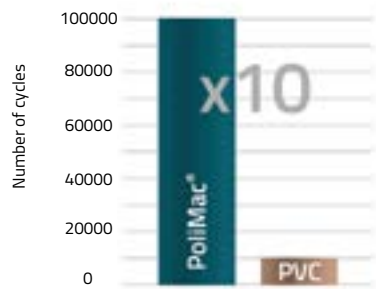
PoliMac® showed excellent performance by withstanding 100,000 cycles of abrasion in accordance with test method described in EN 60229-8.

UV resistance tests

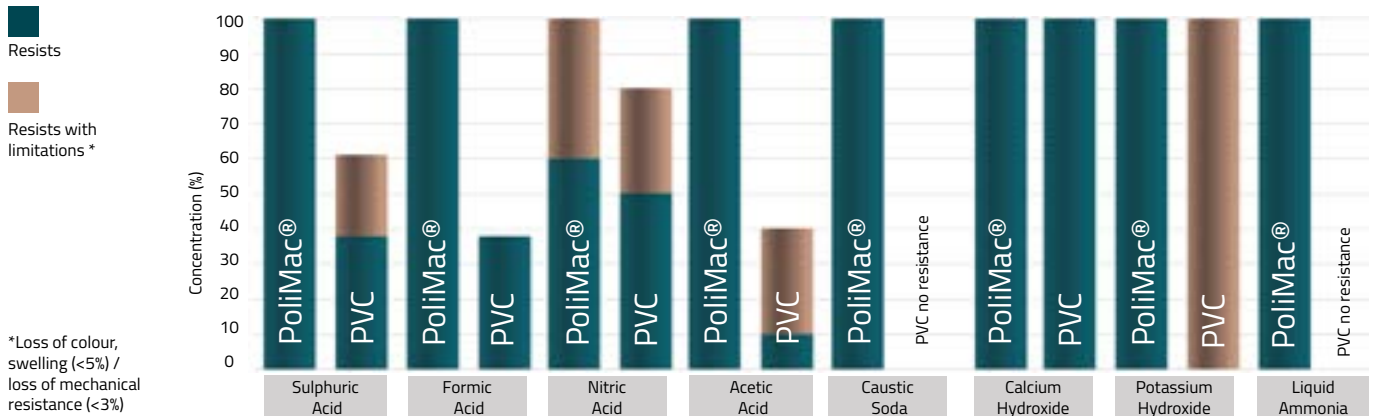
As a result of severe accelerated aging tests, PoliMac® achieved conformance with ISO 4892-3, EN 10223-3, showing better tensile strength resistance and elongation than other traditional polymeric coatings after 2,500 h of exposure to UV.



BETTER RESISTANCE THAN TRADITIONAL POLYMERIC COATINGS



The new PoliMac® polymer coating is more resistant to chemical attack, both in alkaline and acidic pH conditions versus traditional polymeric coatings for steel wire.



*Loss of colour, swelling (<5%) / loss of mechanical resistance (<3%)

POLIMAC® COATED PRODUCTS

PoliMac® polymer coating is applied to numerous Maccaferri products to enable the development of solutions that meet the durability, performance and cost-efficiency demands of today's civil engineering projects.

- Gabion
- Terramesh® System
- Mesh & Rockfall netting
- Reno Mattress®
- Sack gabion
- MacMat® R
- Green Terramesh®

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