

THE ORIGINAL MULTIFUNCTIONAL GEOMAT

Used in countless infrastructure and river works worldwide, **MacMat® R** provides surface stabilisation, erosion protection and root reinforcement in one, easy to install product. Now improved with greater tensile strength, greater punch resistance and a new green erosion mat.

Erosion of soil from embankments and channels becomes critical when it results in damage to infrastructure or leads to the pollution of water courses. Relying on vegetation growth alone to provide surface protection is unreliable as it is difficult to achieve 100% vegetation coverage, leaving exposed areas vulnerable to erosion.

MacMat® R consists of a 3D matrix of UV stabilised polymer fibres extruded onto Maccaferri's polymer coated steel wire woven mesh. This unique one-piece geomat is simple to install, long lasting and has high puncture resistance.

Vegetation establishment

MacMat® R is plant friendly. It physically protects vulnerable soil surfaces, reducing erosion and encouraging vegetation establishment. **MacMat® R** easily accepts hydroseeding and shrub planting where more rapid colonisation is required.

Low wastage

Unlike other geomats, adjacent panels of **MacMat® R** do not need to be over-lapped. The integral steel mesh means panels can be 'butt-jointed' together using fixing rings or lacing wire.



MacMat® R

Advantages of MacMat® R

- M** Provides immediate erosion protection of exposed areas
- M** Spreads loads between soil-nail heads in slope stabilisation solutions
- M** Steel wire woven mesh reinforcement increases strength, puncture and shear resistance
- M** BBA certified 120 year design life reinforcing mesh enables reduced fixing frequency
- M** Flexible and malleable geomat enables intimate contact with surface
- M** All-in-one product for rapid and simple construction

MacMat® has achieved an **Environmental Product Declaration** which provides transparent, reliable and comparable life cycle environmental data.



MacMat® R stabilisation of a soil slope face

MACMAT® R

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Environmental Product Declaration (EPD) in accordance with ISO 14025 and EN 15804:A1
 EPD reg no: EPD-Kiwa-EE-00384-EN
www.kiwa.com

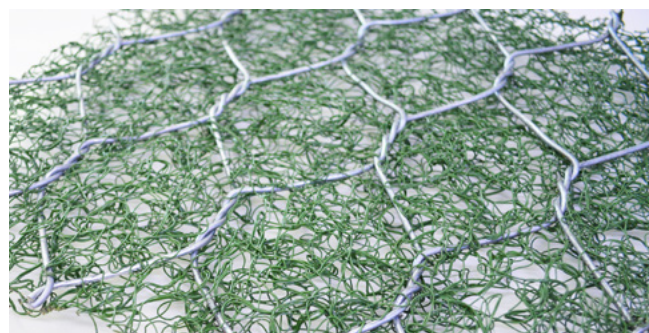
Primary uses of MacMat® R

Slope reinforcement with soil nails

MacMat® R is used extensively on soil nailed slopes especially within the railway and highway sectors. The nails reinforce the overall slope and the **MacMat® R** stabilises the slope surface. Any forces from local surface slip failures are transferred back to the nail heads. A high puncture resistance at low deflection is a vital characteristic for successful implementations.

Channel linings

Macmat® R is regularly used to line river, stream and canal channel banks from erosion by water flow. It dramatically increases the shear resistance of the channel bank, preventing erosion and facilitating vegetation re-establishment. The strength of the mesh reduces the geomat 'lifting' when exposed to aggressive hydraulic flows. Once installed the channel is immediately stabilised and vegetation can colonise the channel again. This ensures that the gabion boxes keep their rectangular shape during lifting, transportation and placement.



The mechanical properties of **MacMat® R** woven steel wire double twist mesh exceed the requirements of EN10223-3. To provide reliable long-term performance, the mesh is protected with GalMac® galvanising (Class A in accordance with EN 10244-2) with an additional tough polymeric coating for a longer design life in aggressive conditions.

Characteristic	Detail
Reinforcement	Woven steel wire mesh (8x10)
Reinforcement coating	GalMac® Alu-Zinc alloy with tough polymeric sheathing. BBA certified to 120 year design life
Tensile strength	55 kN/m
Punch resistance	70 kN
Roll dimensions	2 x 25m

*Tolerance exists on parameters. See technical data sheet for details.



MacMat® R surface protection & stabilisation for roads



MacMat® R soil stabilisation in industrial park

Maccaferri Ltd
 T: +(44) 01865 770 555
 E: info.uk@maccaferri.com

www.maccaferri.com/uk

Republic of Ireland Maccaferri Partner - Geostrong
 T: +(353) 01885 1662
 E: Sales@geostrong.net

www.geostrong.net