



RENO MATTRESS PLUS
2.2 POLIMAC®

Reno Mattresses Plus are units manufactured from double twisted hexagonal woven steel wire mesh type 6x8, made of PoliMac® coated steel wire. The base, diaphragms, front, end and sides of the unit are manufactured from one continuous panel of mesh; the base is folded onto itself at regular intervals to form double diaphragms that are secured with spirals at the production facility.

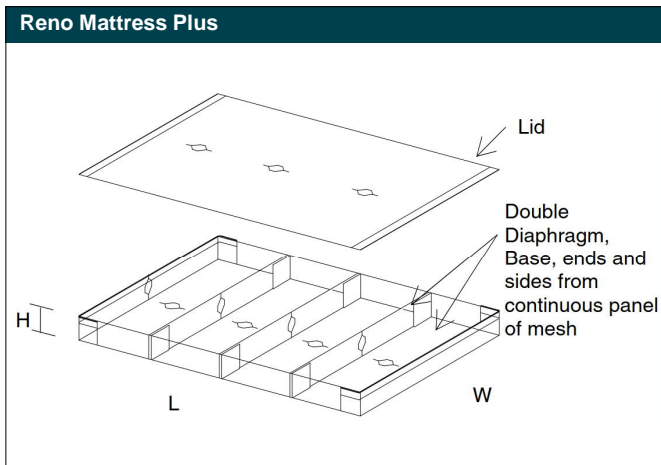
To secure a tighter packing of the filling stones and improve the hydraulic performances of the mattresses, the units are supplied together with vertical ties (X-Ties) connecting the base panel to the lid and to be installed on the site.

Units are produced in compliance with CPR - Construction Product Regulation 305/2011 and EN 10223-3.

RENO MATTRESS PERFORMANCES			6x8 2.2 PLUS POLIMAC
Physical Properties			
Steel wire diameter (int. / ext.)	EN 10218-2	mm	2.20 / 3.20
Selvedge wire diameter (int. / ext.)	EN 10218-2	mm	2.70 / 3.70
Galmac coating	EN 10244-2	Class	Class A
Hydraulic Performances			
Permissible shear stress in unvegetated conditions		--	445 N/m² 534 N/m² 637 N/m² h=0.17 m h=0.23 m h=0.30 m 
Durability Performances			
SO ₂ corrosion resistance	ISO 6988	Cycles	> 28
Salt Spray (5% DBR)	ISO 9227	Hours	> 6,000
UV resistance (@ 2,500 hours) ⁽¹⁾	ISO 4892-3	%	< 25
Abrasion resistance ⁽²⁾	EN 60229	Cycles	> 100,000
Environmental and Sustainability Properties			
Global Warming Potential (GWP _{100 yrs}) ⁽³⁾	EN 15804	kgCO ₂ equiv / Kg product	< 9.99x10⁻¹

DESIGN THE CHANGE 

The **Permissible Shear Stresses** of Reno mattresses have been obtained by full scale flume tests performed at the Engineering Research Center of Colorado State University (USA) following the ASTM D 6460 test methodology. The **design values** depend on installation procedures (use of X-Ties) and actual stones characteristics (D₅₀, C_u). Use Maccaferri **MACRA software** to effectively utilize the permissible shear stress of Reno mattress in the design of river training works.



Sizes of Reno Mattress Plus		
Length (m)	Width (m)	Height (m)
3	2 - 3	0.17 - 0.23 - 0.30
4	2 - 3	0.17 - 0.23 - 0.30
5	2 - 3	0.17 - 0.23 - 0.30
6	2 - 3	0.17 - 0.23 - 0.30

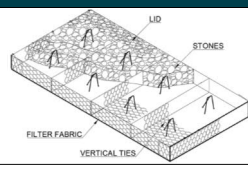
Sizes and dimensions are nominal.
Tolerances of ±5% of the length, width and ± 2.5 cm of the height shall be permitted

Accessories ^(*):

Stainless Steel C-Rings:

- Diameter: 3.00 mm
- Tensile strength > 1,550 MPa
- Pull-apart strength > 2.0 kN
- Max spacings: 200 mm

Vertical ties: Preformed X-Ties (1/m²)



(*) The accessories are NOT included, unless explicitly mentioned in the price offer. For additional details, see the installation manual.

EPD®
Certification Number SF 01466
Download the EPD from maccaferri.com/EPD

bimstore
Download the digital model for free on bimstore or on maccaferri.com/BIM

BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVAL FOR CONSTRUCTION

ETA n. 15/0219
CE
1301-CPR-1229

(1) UTS/elongation @ break of the base compound after 2,500 hrs exposure to QUV-A do not change more than 25% from initial test results.
(2) Tested in accordance with procedure described in par. 4.1.2.1 of EN 60229 with a vertical force of the steel angle of 20 N
(3) Value reported in the EPD certificate S-P-01466 issued in accordance with ISO 14025 and EN 15804+A1 to Maccaferri with reference to the Gabions product family with validity till December 2023.

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Maccaferri operates under strict quality assurance and management procedures. Please visit the website of your local subsidiary for details of their Certifications.

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