MACCAFERRI

TECHNICAL DATA SHEET

Rev: 05a, Date 01.12.2025

8x10 GABION

2.7 POLIMAC®

Gabions are baskets manufactured from double twisted hexagonal woven steel wire mesh type 8x10, made of PoliMac® coated steel wire.

Gabions are typically filled with stones at the project site to form flexible, permeable, monolithic structures such as retaining walls, channel linings and weirs for erosion control projects.

Units are produced in compliance with The Construction Products (Amendment etc.)(EU Exit) Regulations 2020 on the basis of UKAD 200019-00-0102 and UKTA-0836-22/0019.

GABION PERFORMANCES			8x10 2.7 HT POLIMAC®
Physical Properties			
Steel wire diameter (int. / ext.)	EN 10218-2	mm	**2.70 / 3.70**
Selvedge wire diameter (int. / ext.)	EN 10218-2	mm	**3.40 / 4.40**
Galmac C2 coating	EN 10244-2	Class	**Class A**
Mechanical Performances			
Mesh Tensile Strength	EN 10223-3	kN/m	**55 ± 5**
Gabion Serviceability Coefficient (GSC)	- -		**978 (h=0.5 m)** **489 (h =1.0 m)**
Mesh Punching Load	EAD 200019-01-0102	kN	**28 ± 4**
Unconfined Compression Strength	EAD 200019-01-0102	kPa	**200 ± 50**
Flexural Integrity	EAD 200019-01-0102	**No wire breaking and no connection lines (joints) failure**	
Durability Performances			
Service life of polymer coating at 25 °C	UL 746B EN 60216-8	Years	**> 125**
SO_2 corrosion resistance	ISO 6988	Cycles	**> 28**
Salt Spray (5% DBR)	ISO 9227	Hours	**> 25,000**
UV resistance (@ 2,500 hours) (1)	ISO 4892-3	%	**< 25**
Abrasion resistance in dry conditions	EAD 200019-01-0102	Cycles	**> 400**
Abrasion resistance in wet conditions	ISO 22182	Weight loss	**< 2 %**
Brittleness Temperature	ASTM D746	°C	**< −35**
Corrosion Spread (@ 2,500 hours)	ASTM A975	**Corrosion length less than a mesh opening**	
Environmental and Sustainability Properties			
Global Warming Potential ($GWP_{100\ yrs}$)	EN 15804	$kgCO2_{equiv}$ / Kg product	**< 2.00**
Leachate Test	EPA 6020B	µg / L	**Lower than the limits set by regulations(2)**
PFAS in Water Test(3)	EPA 537.1	ng / L	**Not detected**
Smoke toxicity	ISO 5659-2, EN 17084		**Index of toxicity $CIT_G(8) < 0.10$**
Environmental Harmlessness	M GEOK E:2016	**Environmentally Uncritical**	

ECO PLATFORM EPD VERIFIED kiwa Ecobility Experts

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 CERTIFICATE 16/H247

UKTA-0836-22/0019

UK CA

0836-CPR-24/F7078

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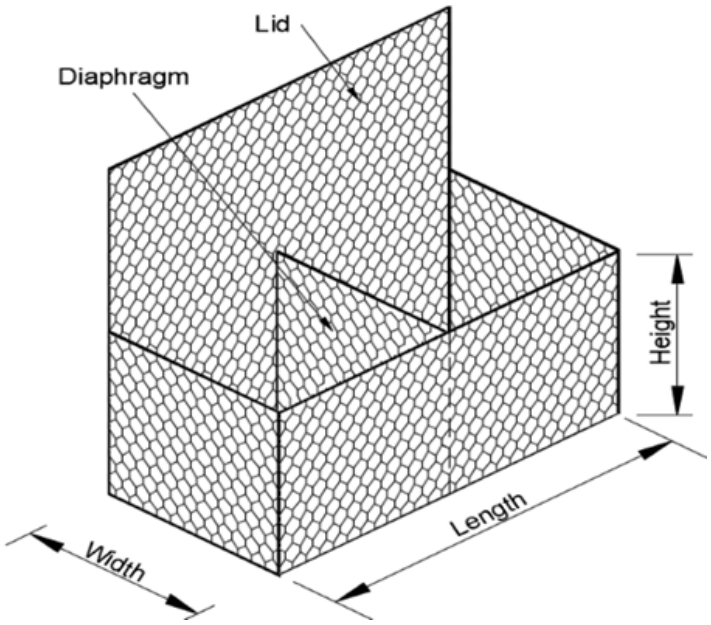
Gabion



Gabion sizes		
Length (m)	Width (m)	Height (m)
2	1	0.3
2	1	0.5
3	1	0.5
4	1	0.5
1.5	1	1
2	1	1
3	1	1
4	1	1

Sizes and dimensions are nominal.
Tolerances of ±5% of the length, width and 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

Bracing ties: Steel wire or preformed self locking ties (i.e. MacTie)

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

DESIGN THE CHANGE

The **Gabion Serviceability Coefficient** (GSC) is the global design factor to evaluate the performance of the gabion structure and the consequent deformation after 120 years of service life, in category C4 according to ISO 9224. GSC considers the degradation effects due to chemical aggressions, installation damage, UV rays exposure, temperature variations and abrasion. Use Maccaferri **GAWAC software** to effectively utilize the GSC in the design of gabion walls.

(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) Test preparation in accordance with EPA 1312; The presence or not of 31 different metals were analysed in the leachate. Regulations: (a) Water Framework Directive 2000/60/EC; (b) CCME Water Quality Guidelines for the Protection of Aquatic Life, Freshwater; (c) U.S. EPA National Recommended Water Quality Criteria (Aquatic Life, Freshwater), 2006.
(3) The presence or not of 28 different PFAS were analysed. The PFOS and PFOA were not detected at <2 ng/L, while other PFAS and their derivatives were also not detected between <2 ng/L and < 4 ng/L.

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