

WELDED GABIONS
GALMAC® C3 COATED

Welded gabions are baskets made of welded wire mesh, with mechanical characteristics according to EN 10223-8 produced in compliance with CPR - Construction Product Regulation 305/2011, and having EC marking in compliance with ETA 17/0295. The management and production system is certified in compliance with Standards ISO 9001.

Welded gabions are filled with stones at the project site for the construction of retaining walls, fencing, landscaping, cladding as well as architectural purposes (Figure 1).

The gabion is divided into cells by means of diaphragms positioned at approximately 1 m centres. Standard mesh-wire sizes of Galmac® C3 coated welded gabions are shown in Tab. 1

Wire

The steel wire used in the manufacture of the gabion is heavily galvanized with Galmac® C3 advanced metallic coating. The standard specifications of wire tolerances and coating are shown in Table 1.

- Tensile strength:** the wire used for the manufacture of gabions shall have a minimum tensile strength of 700 MPa, in accordance with EN 10223-8.
- Galmac® C3 coating:** the minimum quantity of the advanced metallic coating Galmac® C3 coating shown at Table 1 and meets the requirements of EN 10244-2 (Table 2, Class A).
- Adhesion of Galmac® C3:** the adhesion of the Galmac® C3 coating to the wire shall be such that, when the wire is wrapped six turns around a mandrel having four times the diameter of the wire, it does not flake or crack when rubbing it with the bare fingers, according to EN 10244-1.
- Outwearing accelerated ageing test in salt spray:** when the welded wire mesh is subjected to the neutral salt spray test (ISO 9227) after 3,000 hours of exposure the mesh shall not show more than 5% of DBR (Dark Brown Rust).
- Outwearing accelerated ageing test in sulphur dioxide environment:** when the welded wire mesh is subjected to test in a sulphur dioxide environment (ISO 6988) after 56 cycles of discontinuous test the mesh shall not show more than 5% of DBR (Dark Brown Rust)

Durability (ISO 9223 EN 10223-3, Annex 1):

- Ambient C2: > 120 years
- Ambient C3: > 50 years
- Ambient C4: > 25 years

Mesh

Dimensions and tolerances of meshes are shown on Tab. 1. The average shear strength of 4 welds selected at random from one panel shall be $\geq 75\%$ of the breaking load of the wire, with no single weld below 50%, according EN 10223-8. Variations in the panel dimensions shall be a maximum of $\pm 3,0$ mm per metre measured centre to centre of edge wires (EN 10223-8).

Lacing

Lacing operations shall be made by means of steel ring fasteners, using a maximum spacing of 250 mm. The Galmac C3 coated steel rings shall have the following specifications:

- Diameter: 3.00 mm
- Tensile strength: >1720 MPa
- Pull-apart strength >2.0 kN

Quantity Request

When requesting a quote, please specify:

- Size of units (Length x Width x Height), multiple of mesh sizes, according to EN 10223-8.
- Mesh-Wire combination (mm),
- Diaphragms and lacing system (rings or spirals)
- Coating type (Galmac C3)

EXAMPLE: No. 100 Welded Mesh Gabions 2x1x1m, Mesh Aperture 100x100 mm, Wire 4.5 mm, Galmac C3 coated.



Figure 1: Example of Galmac C3 welded gabion application

Table 1: Standard Mesh-Wire Sizes

Mesh Opening (mm) BASE x HEIGHT	50x50, 75x75*, 100x100, 50x100, 100x50		
Mesh Tolerance (\pm mm)	3		
Wire Diameter (mm)	3.0	4.0	5.0
Wire Tolerance (\pm mm)	0.07	0.07	0.08
Minimum Coating g/m ²	255	275	280
Metallic Coating	Galmac C3		
(*) Standard product in UK & Ireland			

Table 2: Standard Unit sizes

Length (m)	Width (m)	Height (m)
1.95	0.975	0.975
1.95	0.975	0.450
1.5	0.975	0.975
0.975	0.975	0.975

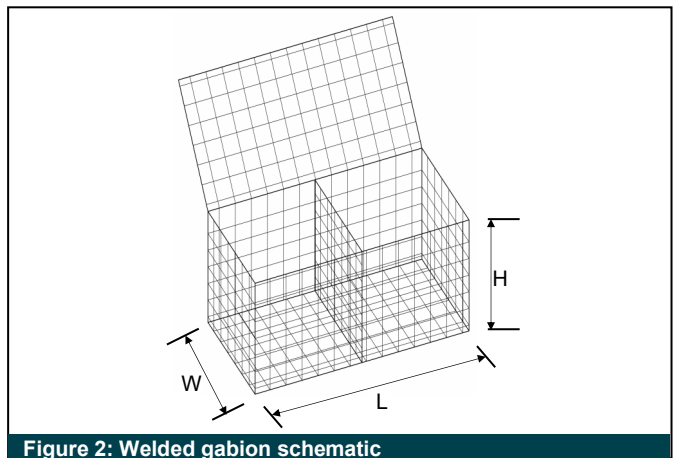


Figure 2: Welded gabion schematic

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