



P r e f i l l e d   g a b i o n s

C U B I R O C K

**MACCAFERRI**



# CUBIROCK prefilled gabions

CUBIROCK prefilled gabions represent new generation of gabions. In comparison with traditional gabions which are filled on the job site, prefilled gabions are filled in a quarry using a special frame combined with a shaking table. After the filling operation they are transported to the job-site. Construction of prefilled gabions together with the filling operation ensures that the gabion boxes keep their perfect rectangular shape during the lifting, transport and placement.

CUBIROCK prefilled gabions are made of heavy and robust hexagonal double twisted wire mesh which is manufactured specially for this application.

CUBIROCK prefilled gabions are filled in a quarry with a suitable filling material which is compacted by vibration on a shaking table. The desired perfect rectangular form of the gabions during and after the filling is ensured by a special form-work. The filled boxes are ready for an instant use on a job site.

## C U B I R O C K



## Types of structures built from prefilled gabions:

- Gravity retaining walls
- Reinforced gabion walls
- Noise barriers

## Application areas for prefilled gabions:

- Railway construction – fast installation without lock-outs
- Highways and motorways – gravity retaining walls, quick stabilization of slopes and landslides
- River training works – river and water reservoir bank protection
- Civil industry – retaining walls, terrain works



### 1. STANDARD SIZES OF PREFILLED GABIONS CUBIROCK

Length (m)	Width (m)	Height (m)	Volume (m³)	No. of cells	Weight (kg/pcs)
1	0,5	0,5	0,25	1	410
1	0,5	1	0,5	1	850
1	1	0,5	0,5	1	850
1	1	1	1	1	1 700
2	0,5	0,5	0,5	2	860
2	0,5	1	1	2	1 700
2	1	0,5	1	2	1 700
2	1	1	2	2	3 400

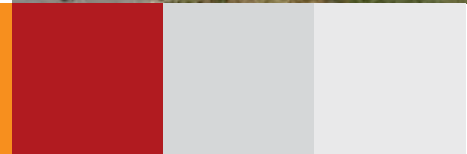
## Advantages in using of CUBIROCK prefilled gabions:

- Construction time is significantly reduced
- Manual labor on the job site is minimized
- Mechanical filling and compaction requires only minimal effort
- Guaranteed quality of the filling and robust construction of the gabions ensures high internal stability of the boxes (no bulging)
- Shape and size preciseness is increased compared to traditional gabions
- Advantageous use under dangerous conditions for the workers on the job site (e.g. un-stabilized excavation pits)



## Transport and placement of the CUBIROCK prefilled gabions:

CUBIROCK prefilled gabions are equipped by a lifting stripe which enables an easy lifting and transport using standard lifting devices (e.g. crane or fork-lift). Significantly increased shape and size preciseness of the prefilled gabions compared to the traditional gabions demands attention to be paid when preparing the wall foundation. Subgrade under the wall has to be flat and uniformly compacted on the whole area. We strongly recommend to build concrete foundation or at least to place a layer of well-compacted crushed stone under the wall. After the placement of the prefilled gabions on the foundation, adjacent gabion boxes are connected together using high-tensile strength C-rings to build a monolithic structure. Usually, 2 or 3 workers (including the lifting device operator) are enough for the entire process of the placement and manipulation. Time necessary for placement of one gabion varies between 3 – 5 minutes, depending on the box size and accessibility of the place.



## Mechanical parameters of CUBIROCK:

Prefilled gabions are made of robust hexagonal double-twisted wire netting with mechanical properties exceeding the requirements according to EN 10223-3. Galfan coating of the wire ensures its high resistance against corrosion. Galfan protective layer thickness is according to EN 10244-2, class A. Durability of galfan protected wire is about 3-times higher than durability of a zinc coated wire.

### 2. MESH SIZE AND WIRE DIAMETER

Part	Mesh size	D (mm)	Tolerance D (%)	Wire diameter (mm)	Selvedge wire (mm)
Bottom, frontal- and back panels, side panels	8/10	80	+16 / -4	3,90	4,90
Diaphragm, lid	8/10	80	+16 / -4	2,70	3,40

### 3. WIRE DIAMETER TOLERANCE GALFAN QUANTITY

Wire diameter (mm)	2,70	3,40	3,90	4,90
Diameter tolerance (±mm)	0,06	0,07	0,07	0,08
Min. galfan quantity (gr/m <sup>2</sup> )	245	265	275	280



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