

CORDEN HEXAGONAL WOVEN GABION BASKETS

Corden Hexagonal Woven Gabion Baskets are manufactured from 2.70mm thick galvan coated (95%Zn/5%Al) hexagonal twisted wire mesh with an additional extruded PVC coating (grey) of 0.5mm nominal radial thickness. The mesh fabric is formed by twisting pairs of wires through one and a half turns to form a hexagonal flexible net pattern of nominal size 80mm x 100mm. The end wires of the mesh panel are terminated by being wrapped around a heavy selvedge wire. All wire is in accordance with BS EN 10218-2:2012 and BS EN 10223-3:2013 with an ultimate tensile strength of between 350 to 500N/mm². The organic polymer powder coating is in accordance with BS EN 10245-2:2011.

Corden Hexagonal Woven Gabion Baskets can be used where the life expectancy is 120 years.

Corden Hexagonal Woven Gabion Baskets		
Characteristic	Unit / Test Method	Corden Woven Gabion Basket
Material Properties		
Wire Thickness	mm	2.70 fabric and 3.40 selvedge wire
Total Wire Thickness incl. PVC Coating	mm	3.70
Mesh Aperture	mm	80.0 x 100.0
Corrosion Resistance	BS EN 10244-2:2009 (Class A)	Galvan Coated (95% Zn / 5% Al) with an extruded PVC coating (grey) of 0.5mm nominal radial thickness
Tensile Strength	N/mm ²	350 - 500
Designation of Sizes		Length x Width x Height
Stone Infill Nominal Size	mm	100 – 150 / 100 - 200
Design Life	Years	120 years

UNIT FORMATION

The gabion is formed from mesh panels so that the front, rear, base and lid are formed from one continuous sheet, such that the front and rear faces have the mesh orientated vertically.

Diaphragms (partitioning panels) and end panels (all vertically orientated mesh) are connected to the base panel with full-length lacing. This process must be undertaken in a factory-controlled environment. Diaphragm spacings should not exceed 1.00m. The supply of loose diaphragm panels for fitting on site is not acceptable.

INSTALLATION

JOINTING

Gabions are supplied with lacing wire as standard for horizontal jointing of adjacent units whilst empty. Lacing is to be continuous along all joints using alternate single and double loops at a maximum spacing of 100mm ensuring that it forms a tight joint. Start or termination of lacing is formed by three turns ensuring the free end is turned into the unit.

If CL50 'C' rings are to be used for final jointing as an alternative to lacing, then these must be installed at every other mesh opening to achieve the required joint strength.

Where gabions are to be pre-filled and lifted instead of filling in situ, it is necessary to brace each cell in both directions. In such circumstances the manufacturer must be consulted prior to supply to ensure product is suitable for application.

Contact Corden for a copy of our Gabion Installation Guide for more information.

GEOTEXTILE SEPARATORS

Where a geotextile separator between the rear of the gabion and backfill is to be used, refer to the engineer's design proposal and specification.

FOUNDATIONS, WALL INCLINATIONS, FACE CONFIGURATIONS, DRAINAGE AND BACKFILLING

Reference to the engineer's design proposal must be made with respect to foundation requirements, wall inclination, face configuration (stepped, flush or combination thereof), drainage and backfilling requirements. Any soft areas in the sub-grade should be excavated and replaced with a granular material to the engineer's requirements.

FILLING

Units are to be filled with a hard, durable, non-frost susceptible rock, stone or clean crushed concrete as specified by design. The grading of the fill is to be 100 to 150mm or 100 to 200mm (6G).

The units shall be filled in layers not exceeding 340mm, if large voids are present then the stone must be re-orientated to minimise voids. Where specified, the gabions are to have a hand placed front face.

The units shall be filled such that the mesh lid bears down onto the gabion filling material. It may be beneficial to blind the top of the filled unit with a 20 to 50mm aggregate.

Filling should be staged so that no adjacent cells have more than a half difference in the level of filling for units of greater height than 500mm.

To assist in maintaining face alignment and reduce deformation, the use of external formwork i.e. timber or scaffold tubes can be tied onto the external face of the structure at third heights and then removed upon completion.

GABION SIZES

It should be noted that it is industry standard for gabions to be quoted as overall nominal sizes.

Designation of sizes **length x width x height**

Gabion standard unit lengths: 2000mm, 1500mm and 1000mm

Gabion standard unit widths: 1000mm

Gabion standard unit heights: 500mm and 1000mm

ACCESSORY PRODUCTS

A wide range of accessories are available for use with Corden Woven Gabion Baskets, including:

- LACING WIRE
- CL50 GALFAN 'C' RINGS
- GABION STONE INFILL MATERIAL
- GEOTEXTILE SEPARATOR FABRIC

HANDLING & STORAGE

It is essential when handling wire products that protective glasses and gloves are worn.

ADDITIONAL INFORMATION

For additional information or assistance, please contact Corden directly.