



ENVIROMESH

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WELDED MESH GABION SPECIFICATION **Gabion 27 Cladding - 4.0mm Wire Diameter – Hot Dip Galvanised**

Gabions shall comply with the following specifications

- MANUFACTURE:** Gabions shall be manufactured from a hard drawn steel wire formed into a bi-axial mesh grid by electrically welding the cross wires at every intersection. The weld strength is to be 70% of the ultimate tensile strength of the wire. Gabions are to be factory assembled with stainless steel clips (minimum one every third mesh opening) connecting side panels and diaphragms to the base panel. Units shall be supplied in lengths of 1.52m, with horizontal diaphragms at typical 0.711m lifts and vertical diaphragms at 0.762m intervals. Units shall be designed such that the coursing remains continuous along the length of the structure with modification of the top and lower cells heights as required to accommodate the stepping arrangement of the top of the wall and foundation levels. The unit is to be manufactured such that the maximum height is 2.133m and assembled to allow filling of the unit in lifts of typically 0.711m.
- MESH SIZE:** The mesh openings shall be square and of a nominal dimension of **50.8mm** on the grid.
- MESH WIRE:** The nominal wire diameter shall be 4.0mm all in accordance with BS EN 10218-2 1997. The tensile strength falls within a range of 540-770 N/mm².
- DEFORMATION CO-EFFICIENT:** The maximum deformation coefficient is to be 0.25 for the unsupported mesh facing.
- CORROSION:** Wire shall be Hot Dip Galvanised in accordance with BS EN ISO 1461.
- JOINTING:** Gabions shall be provided with Galfan coated (95% Zinc / 5% Aluminium) helicals in 3.0mm wire diameter for vertical joints and lacing wire / helicals for horizontal joints except for the lid which shall be helical jointed. Lacing wire shall be Galfan coated and of a minimum wire diameter of 2.2mm for final jointing.
- ROCKFILL:** Gabion fill shall be a hard durable and non frost susceptible (rock or stone type) having a minimum dimension not less than the mesh opening and a maximum dimension of 200mm.
- CONSTRUCTION:** Units to be secured to the concrete wall with 1500mm x 50mm x 10mm clamp bars galvanised to BS EN ISO1461 bolted to the wall with 4 no. anchor bolts (clamp bars are predrilled with 13mm holes). Clamp bars are to be located at a maximum of 1.4m vertical centres. All rock fill shall be packed tightly to minimize voids and the rock fill on the exposed face of the gabion is to be hand packed. Corner bracing ties 2 per cell installed at mid height across each corner on 0.711m high cells and at 1/3rd and 2/3rd height on cells greater than 0.711m in height. Units shall be filled such that the mesh lid bears down onto the rock fill. The lid shall be wired down on all joints and across the diaphragms.

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