



#### GEOPLUS ENVIRO SDN BHD 246904-M

No. 21, Jalan Utama 2/6, Taman Perindustrian Puchong Utama, 47100 Puchong, Selangor Tel: 0380603669, 80606676

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# GEOPLUS GABION AND GEOPLUS GABION MATTRESS

**Geoplus Gabion** is non rigid structure constructed of double twisted hexagonal mesh cages filled with rocks to serves as retaining structures or surface protection against erosion. Geoplus Gabion allow free passage of water thus eliminates buildup of hydrostatic pressure behind retaining structures. Normally used at bottom of slope to increase toe weight or as retaining structure.

**Geoplus Gabion mattress or revet mattress** is a special form of gabion with plan areas greater than its thickness. Fabricated from heavily with PVC coated double twstied hexagonal wire mesh, Geoplus Gabion Mattress provides protection against forces of water such as rainfall-induced erosion on slope surface or moving water on the riverbank.

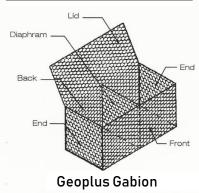
The wire used to manufacture to double twisted wire mesh is complying with BS443, MS407 and BS1052 standards to prevent corrosion. In case of use in aggressive environments, it is further extruded with PVC Coating and Zn95-A15 galvanized. The PVC Coating is UV Stabilized as per ASTM A975. The coating shall be in grey color and the average thickness is 0.5mm, shall be capable of resisting deleterious effect of natural weather exposure, immersion in salt water and shall not show any difference in its initial characteristics. The maximum penetration of corrosion of the wire core form a square cut end shall not greater than 25mm after the specimen immersed for 2000hours in 50% solution of Hydrochloric Acid (HCL).

	Standards	Mesh	Sizes
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80mm x 120mm

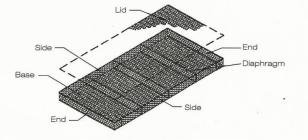
#### **Geoplus Gabion Sizes**

Length, m	Width, m	Height, m
1	1	1
2	1	1
3	1	1
4	1	1
2	1	0.5
3	1	0.5
4	1	0.5
2	1	0.3
3	1	0.3
4	1	0.3



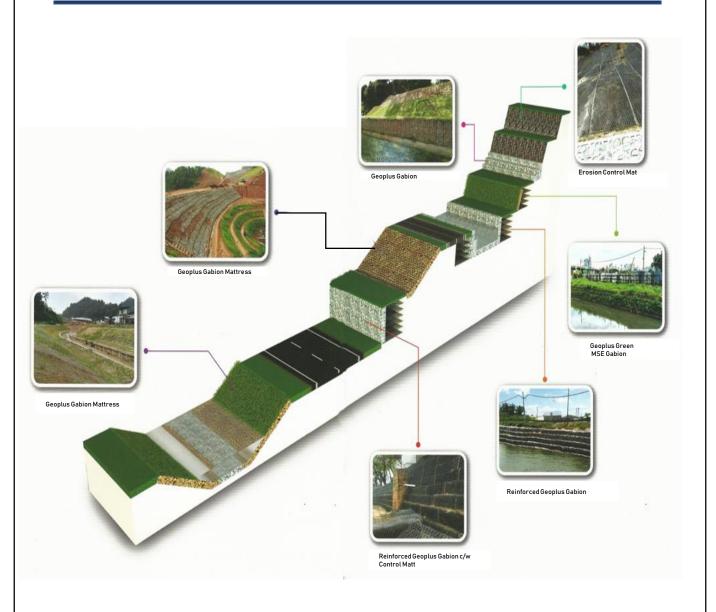
#### Geoplus Gabion Mattress Sizes

Length, m	Width, m	Height, m
3	2	0.17
6	2	0.17
3	2	0.23
6	2	0.23
3	2	0.3
6	2	0.3

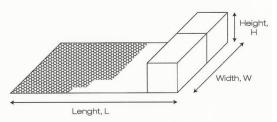


**Geoplus Gabion Mattress** 

## GEOPLUS HYDRAULIC SCOUR PROTECTION AND MSE GABION WALL SYSTEM



## MSE (Mechanically Stabilized Earth System) GEOPLUS REINFORCED GABION



#### Standards Dimension

Length, m	Width, m	Height, m
3 & above	2	1, 0.5

Geoplus Reinforced Gabion Slope System is a mechanically reinforced soil gabion wall fabricated from a continuos double twisted PVC Coated wire mesh that makes up the gabion basket facing and the mesh reinforcement panel (or geogrid). Each unit should be placed in the direction of maximum strength, which is the direction the mesh is woven, lying parallel to the direction of soil stress.

The reinforcement mesh tensile strength shall be 47kN/m or greater, tested in accordance with ATM A975-11

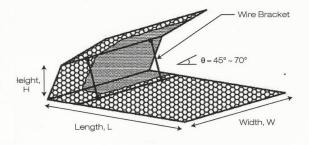


# GREEN MSE (Mechanically Stabilized Earth System, Vegetated Facing) GABION

Green MSE (Mechanically Stabilized Earth System, Vegetated Facing) Gabion is a retaining structure fabricated from a continuous double twisted pvc coated mesh panel with a vegetated matting enclosed with a mesh reinforcement backing on the facia. This monolithic design allows the soil reinforcement and vegetated facia to offer strength, durability and flexibility.

#### Standards Dimension

Length, m	Width, m	Height, m
3 & above	2	0.6, 0.45



## **PROJECT REFERENCE**



Supply of Gabion Mattress at JKR Batu Pahat



Supply of Gabion Mattress at Bertam



Hap Seng Land Project



Supply of Gabion Mattress at LLM Bangi



Supply of Gabion Mattress at Bentong



Supply of Gabion at Segamat



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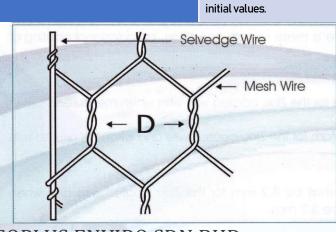
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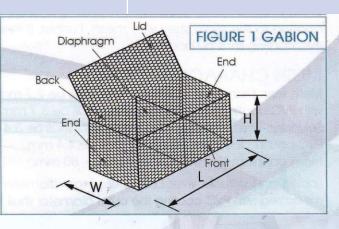
Fax: 0380604525

#### **TESTS FOR THE GABIONS**

Different tests to be carried on the gabion material are tabulated along with references and standards in Table below:

MeshType	8cmx12cm	References of Specification
Mesh Opening "D" mm	80mm	ASTM A 975
Nominal Dimension	83mm x 125mm	ASTM A 975
Unit Dimensions		
Mesh Wire Diameter (mm)	(2.2/3.3) / (2.7 / 3.7) (inner Dia. / Outer Dia.)	EN10223
Tolerance (±) mm	0.08	BS1052
Zn Coating Min (gsm)	260	BS 443: 1982
Selvedge/EdgeWire Diameter(mm)	3.4/4.4 (Inner Dia. / Outer Dia.)	EN10223
Tolerance (±) mm	0.10	BS1052
Zn Coating (Selvedge / Edge Wire) Min (gsm)	275	BS 443: 1982
Lacing Wire Diameter (mm)	2.2/3.2 (inner Dia./Outer Dia.)	
Tolerance (±) mm	0.06	BS1052
Zn Coating (Lacing Wire) Min (gsm)	240	BS 443: 1982
Fasteners (mm)	3.0 / 4.0 (inner Dia. / Outer Dia.)	
Stiffenrs (mm)	2.2/3.2 (inner Dia. / Outer Dia.)	
Zn Coating on fastener/stiffers (gsm)	240	ASTM A 641
PVC Coating		
Colour	Grey	
Thickness Nominal (mm)	0.50	ASTM A 975
Thickness Minimum (mm)	0.38	ASTM A 975
Specific Gravity	1.32	ASTM A 792
Tensile Strength	Not less than 21N/mm²	ASTM D 412
Mondulus of Elasticity	Not less than 19N/mm²	ASTM D 412
Hardness	Between 50 and 60 Share D	ASTM D 2240
Abrasion Resistance	Less than 220mm²	DIN 53516
Salt Spray Exposure and Ultraviolet Light	a) The PVC shall show no effect after 1500 hours of salt	ASTM B 117-90
Exposure	spray exposure. b) The PVC shall showno effect of exposure to ultraviolet light with test exposure of 2000 hours. c) After the salt spray test and exposure to ultraviolet light, the PVC coating shall not show cracks or noticeable change of colour, or blisters or splits. In addition, the specific gravity and hardness shall not change more than 10% and 15% respectively from their	& ASTM D G53-88





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