

CL:SB

116.21

Common Arrangement R12

Uniclass

JD41:L155

RockBox™



Gabions and Mattresses



Geosynthetics

RockBox™

Gabions and Mattresses



RockBox™ gabions are wire mesh containers that are delivered flat-packed and then constructed on site. Once in place they are filled with stone to create robust and attractive structures for demanding applications such as retaining walls, noise bunds and channel protection.

Permeability and flexibility make them a highly effective alternative to concrete or other solid structures and generally they are quicker to install and require less excavation.

Their flexibility means they remain structurally sound even during earth movement as well as being able to take their full load capacity immediately - unlike concrete which could take up to a month. Because they are highly permeable, RockBox™ gabions in conjunction with a non-woven geotextile for filtration, promote effective drainage by allowing the free movement of water and reducing waterlogged ground.

Filled with locally sourced materials they blend naturally into the surrounding landscape and planting can be encouraged for a more natural appearance. Alternatively you can try different colours and types of rock to create a feature or choose more environmentally-friendly options such as crushed concrete.

Available in welded or woven designs and galvanised or plastic-coated, Geosynthetic's RockBox™ is ideal for:

- Retaining walls
- Noise bunds
- River training
- Erosion control
- Soil conservation
- Marinas and seashore protection
- Landscaping
- Structure protection
- Canal, river and dam lining
- Flood protection



Welded Mesh Face



Handplacing facing stone in RockBox welded units



Woven Mesh Face

RockBox™ Woven gabions

RockBox™ Woven gabions are regularly used in industrial and environmental applications providing a cost-effective alternative where the visual impact of the gabion is less important.

However they still give the same efficient drainage and flexibility as weldmesh gabions and installation can be carried out quickly and easily by unskilled labourers without the need for special equipment.

The units are manufactured with a double-twist woven wire with a core of 2.7mm and joined with tying wire which is included in the cost along with full installation instructions. Once again you can choose from galvanised or plastic coated wire to suit the relevant application and required lifespan.

Advantages of using RockBox™ Woven Gabions:

- Every join twisted together twice for excellent rigidity
- No hidden extras - includes tying wire
- Next day delivery
- High stock levels
- Full technical recommendation service available from our engineering department
- Full installation instructions provided

Mattresses

These are low-level wire mesh containers with a much bigger ground footprint generally used for channel linings, pipe outfalls and culverts. As with the gabions they are available welded or woven and can be provided with galvanised or plastic coating. Standard sizes are held in stock for next day delivery.



Holly Hayes Wood, Whitwick



Killarney, County Kerry, Ireland

Applications

- Retaining structure
- Reinforced earth walls
- Flood protection
- Landscaping

Applications - mattresses

- Channel lining
- Pipe lining
- Culverts

Dimensions

Gabions

- 1m x 1m x 0.5m
- 1m x 1m x 1m
- 1.5m x 1m x 1m
- 2m x 1m x 0.5m
- 2m x 1m x 1m

Mattress

- 3m x 2m x 0.3m

Certification

- BSEN ISO 10244-2
- ISO 9001

Ancillary Products

- Hog rings
- Tying Wire

Full design, supply and installation service available

Geosynthetics Ltd is a leading distributor

Please call

01455 617 139

or email sales@geosyn.co.uk
for further information.

Wide
product
range

Large
stock
holding

Next day
delivery

RockBox™ Weldmesh gabions

RockBox™ Weldmesh gabions are widely considered the most aesthetically pleasing option and you'll find them used extensively where a neat appearance and clean outline are important, such as public areas, housing developments, landscaping and gardens.

RockBox weldmesh gabions have a higher tensile strength than woven units and a much greater dimensional accuracy. Helical binders are available which are proven to offer superior joint strength over hog rings or lacing wire, resulting in a strong and long-lasting structure.

You can choose from galvanised or plastic-coated wire in 3mm, 4mm and 5mm gauges. The galvanised units are coated to BSEN ISO 10244-2 and the plastic coated version offers even greater corrosion resistance with an impressive design life of up to 120 years - even in exposed conditions.

Advantages of using RockBox™ Weldmesh Gabions:

- No hidden extras - includes tying wire for horizontal joints and coupling units
- 4mm wire helicals available
- Aesthetically pleasing
- Next day delivery
- Full technical recommendation service available from our engineering department
- Full installation instructions provided

Applications

- Retaining structures
- Flood protection
- Reinforced earth walls
- Landscaping
- Architectural cladding

Dimensions

- 1m x 0.5m x 0.5
 - 1m x 1m x 0.5m
 - 1m x 1m x 1m
 - 1.5m x 1m x 1m
 - 2m x 1m x 0.5m
 - 2m x 1m x 1m
- Full range of bespoke sizes and mesh options available

Certification

- BSEN ISO 10244-4
- ISO 9001

Ancillary Products

- Hog rings
- Helicals
- Tying Wire

Full design, supply and installation service available



Birch Coppice, Enabling & Access works, Dordon, Warwickshire

ator of geosynthetic materials in the UK

Design
service

Onsite
support

See all products
online at
geosyn.co.uk



Geosynthetics



Quality assurance

Certified Quality

RockBox™ gabions and mattresses are manufactured under a quality management system which is certified in accordance with the most comprehensive standards set by the International Organisation for Standardisation; namely ISO 9001.

Galvanising is to BSEN ISO 10244-2 standard, giving the zinc coating an average of 40 years life in exposed situations. Furthermore as acid rain levels continue to decline this lifespan is expected to increase. This is achieved by total immersion into molten zinc, which is metallurgically bonded to the steel and protects it from corrosion even when the galvanising becomes chipped or scratched.

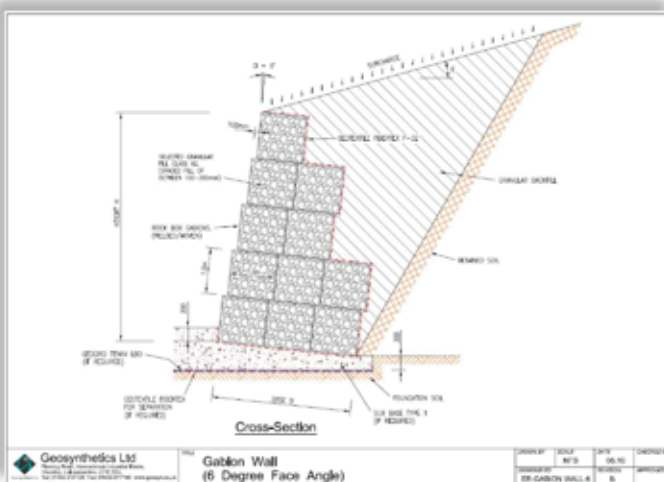
Design Service

Our engineering department can help you to find the best solution for your project. You'll benefit from the most efficient construction to achieve the right level of structural integrity without unnecessary cost and save money through;

- Less excavation
- Fewer and smaller gabions
- Less fill material
- Less labour

All of our engineered calculations are presented as technical recommendations in accordance with BS8002: Earth retaining structures and BS8006: Strengthened/Reinforced soils and other fills.

Please contact our RockBox™ sales office 01455 617139 or email sales@geosyn.co.uk for more information



Geosynthetics Ltd is committed to offering the best solutions for soil stabilisation, erosion control, drainage and environmental protection problems.

Well trained staff are always available to discuss which materials are best suited to any particular application

Technical specification



RockBox™ Woven Galvanised Gabions (Standard Sizes - Ex Stock)

Size L x W x H (m)	Nominal Wire Dia (mm)	Nominal Mesh Size (mm)	Number of Diaphragms	Cubic Capacity (m³)	Volume of Stone fill (tonnes)*
1 x 1 x 0.5	2.7	80 x 100	0	0.5	0.85
1 x 1 x 1	2.7	80 x 100	0	1	1.75
1.5 x 1 x 1	2.7	80 x 100	0	1.5	2.63
2 x 1 x 0.5	2.7	80 x 100	1	1	1.75
2 x 1 x 1	2.7	80 x 100	1	2	3.5
3 x 2 x 0.3	2.7	80 x 100	2	1.8	3.15

*Approximate figures - dependant on type of stone (i.e.; igneous granite or sedimentary limestone etc)

RockBox™ WeldMesh Galvanised Gabions (Standard Sizes - Ex-Stock)

Size L x W x H (m)	Nominal Wire Dia (mm)	Nominal Mesh Size (mm)	Number of Diaphragms	Cubic Capacity (m³)	Volume of Stone fill (tonnes)*
1 x 0.5 x 0.5	3	76.2 x 76.2	0	0.25	0.44
1 x 1 x 0.5	3	76.2 x 76.2	0	0.5	0.85
1 x 1 x 1	3	76.2 x 76.2	0	1	1.75
1.5 x 1 x 1	3	76.2 x 76.2	0	1.5	2.63
2 x 1 x 0.5	3	76.2 x 76.2	1	1	1.75
2 x 1 x 1	3	76.2 x 76.2	1	2	3.5

4mm x 5mm wire units can be made to order. Stainless units and/or faces can be fitted

*Approximate figures - dependant on type of stone (i.e.; igneous granite or sedimentary limestone etc)

Plastic coated units are available in both Woven & WeldMesh units if required

RockBox™ Accessories

Item	Details		Available in:
Helicals	4mm Wire x 1m Long Helical		Packs 10no
Tying Wire	2.0mm Galvanised Tying Wire		1kg Coils (Approx 32m)
RockBox C-Rings	RockBox C-Rings; used with pneumatic pliers. Each ring has a breaking load in excess of 100kg providing a very quick and robust method of jointing.		Boxes of 1600no. Rings
C-Ring Quantities Guide	Gabion Size (m)	Approx number of rings per unit	Approx no. of units per box
	1 x 0.5 x 0.5	35	45
	1 x 1 x 0.5	45	36
	1 x 1 x 1	55	29
	1.5 x 1 x 1	60	27
	2 x 1 x 0.5	70	23
	2 x 1 x 1	80	20