

These instructions should be read in conjunction with the contract specification and drawings. They are intended to provide guidance in normal installation situations and are addressed to the installer on site. They do not seek to address design matters; they do not seek to address unusual installation circumstances. If in doubt, consult ABG for further advice.

Description

EROSAWEB consists of perforated HDPE strips securely welded together to form a honeycomb web of open cells. It is supplied as rectangular panels compressed into a relatively small strip which is expanded on site. On steep slopes EROSAWEB holds the veneer surface in place and helps prevent erosion by rain, water and wind when the cells are backfilled with soil, crushed stone or concrete. EROSAWEB may be laid onto a prepared earth or rock formation and also onto geomembrane barriers. When used on geomembrane barriers on slopes longer than 1.5 m a geogrid will also be required. EROSAWEB is supplied as standard (4 m x 6 m) panels in depths of 100 mm, 150 mm and 200 mm; other lengths, widths and web depths are available as custom-made panels.

EROSAWEB is designed for surface layer stabilization and erosion control, not to reinforce against the potential for deep seated slips in inherently unstable slopes. Fixing pins are either straight "J", "U" shaped, or helical pins with a WebGrip attachment. They are specified dependant on ground conditions, slope and loadings. The length of fixing pins will depend on the ground conditions onto which the web is laid. Where there is a geomembrane barrier or a rock surface beneath the EROSAWEB, fixing pins cannot be used and the tensile resistance must be provided by a geogrid.

Installation

1. EROSAWEB is supplied without packaging, folded in zig-zag fashion on pallets. The number of panels per pallet varies according to the panel depth. EROSAWEB is resistant to UV light but should be covered if stored for long periods.
2. The label on each coil will indicate the type and expanded dimensions of the web eg. GWX100/300 4 x 6 m indicates a depth of 100 mm, cell diameter of 300 mm and expanded web 4 m long by 6 m wide. Panels may be laid either way.
3. Prepare the slope surface by grading to the required angle. Remove any large objects, rocks, stumps or ruts that will prevent the EROSAWEB from lying in contact with the surface.
4. Excavate an anchor trench at the top of the slope to the minimum dimensions shown below:

Slope angle between benches	EROSAWEB GWX100 & GWX150			EROSAWEB GWX200		
	Anchor trench (m)			Anchor trench (m)		
	Depth	Width	Distance from crest	Depth	Width	Distance from crest
10°	0.3	0.3	0.5	0.5	0.5	0.5
20°	0.3	0.3	0.5	0.5	0.5	0.5
25°	0.3	0.3	0.5	0.5	0.5	0.5
30°	0.5	0.3	0.75	0.75	0.5	0.75
45°	0.5	0.3	0.75	0.75	0.5	0.75
60°	0.5	0.3	0.75	0.75	0.5	0.75

A "V-trench" is assumed. The appropriate anchor trench size is site-specific and will depend on the ground conditions.

5. Transport the folded EROSAWEB to the top of the slope. In its compressed form each standard Erosaweb panel is 6 metres wide. It is important to check the designed dimensions of the web panel and to expand the EROSAWEB to the correct dimensions.
6. During installation the folded panels have to be unfolded and expanded to their dimensions as stated on the label. For optimum strengthening the cells should be expanded symmetrically and not over-stretched so as to become distorted in any direction, however, slight under- or over-expansion is acceptable to fit site constraints.
7. On soil surfaces place the first section of expanded EROSAWEB into the bottom of the trench. Place fill into the anchor trench ensuring that the material completely fills the pockets of EROSAWEB and is well compacted.
8. On geomembrane barriers and rock surfaces, place the geogrid into the anchor trench. Place fill into anchor trench ensuring that the material is well compacted. Lay the geogrid down the slope and hold the end in place with a small amount of stone or soil. Fix the EROSAWEB to the geogrid along the top edge using fixing ties instead of pins. The fixing ties are looped around the cell strip and through the geogrid. The recommended fixing ties are ABFIX ties, UV resistant, of length appropriate to the web depth, having minimum loop strength of 75 kg.
9. Stretch the EROSAWEB down the face of the slope and pin or fix in position according to the specified pattern. EROSAWEB can be laid continuous across benching. If pins are used, they should be driven in angled slightly towards vertical rather than perpendicular to the slope. This will prevent the web slipping off the pins. L-shaped pins are preferable on steep slopes.
10. When correctly extended, each panel should be approximately rectangular and the cells will appear symmetrically shaped. At abrupt changes of slope, such as at anchor trenches, the walls of the EROSAWEB may be allowed to deviate from perpendicular.
11. At the bottom of the slope the EROSAWEB should be buried in a shallow trench, 0.3 m wide by 0.3 m deep and trapped with backfill material.
12. If the EROSAWEB panels have to be joined part way down the length of the slope, use one ABFIX tie per cell. Preferably, the EROSAWEB panels should be orientated so that joints within the length of the slope are minimised or avoided.
13. Lay adjacent panels in a similar manner. Panel edges should lap into each other, jigsaw fashion.
14. Fill should be placed from the bottom of the slope, evenly towards the top. Ensure that each cell is filled completely and that the cell walls of EROSAWEB remain perpendicular to the slope. Infill material may be placed slightly above the depth of the EROSAWEB and, where appropriate, compacted lightly.
15. A range of materials may be specified for infill, from topsoil, sand and most cohesive fills to crushed stone or concrete. The final surface should be finished as shown on the drawings. Where vegetation cover is required, a biodegradable erosion control textile such as EROSAMAT TYPE 1A may be beneficial during establishment.

Tools and ancillaries

Sharp knife, hammer. Steel pins, minimum 10 mm diameter, length at least 3 times the web depth, or ABFIX ties. Number will depend on nature of underlying material. Geogrid of appropriate strength and/or EROSAMAT TYPE 1A if required.