Groundcell
MAKING GROUND WORK

Protecting your roots

Groundcell is widely used for erosion control on slopes and embankments to protect, reinforce and stabilise the soil and promote growth. It is also used extensively for tree root protection where it is necessary to build an access road or area subject to traffic over ground containing tree roots.Groundcell is a cellular confinement system formed of textured and perforated strips made from High Density Polyethylene (HDPE) and connected together by ultrasonic welding. The finished panels then form cells which when installed form a structure similar to that of a honeycomb. These are then filled with soil or aggregate depending on the application.

- *The cell structure creates a sub-base above the surface and spreads the imposed load, helping to*
- *prevent damage to the roots, whilst providing a stable and solid base.*
- *The structure of the panels is designed to prevent irregular settlement and washout of the cell contents.*
- *It also enables better compaction and as a result in some circumstances the depth of the sub-base can be reduced.*

Installation guidelines – tree root protection

1. Prepare and level the surface by removing vegetation and debris and filling hollows in the surface with clean angular stone and/ or sharp sand as required. Soil should not be removed or compacted as this could cause damage to the underlying tree roots.
2. Install a layer of Earthworx NW1000 Geotextile Fabric over the prepared surface and extend beyond the area to be covered by the Groundcell by approx 300mm. If joins are required in the geotextile, these should be overlapped as per the engineer's specification (minimum 300mm).
3. Lay a panel over the surface and secure one edge of the panel (in the middle)with a Groundcell pin. Pull the panel out to its full length (depending on panel size) and secure the other end with a Groundcell pin. Repeat the same procedure across the width of the panel, stretching it out to its full width and securing in each corner with a Groundcell pin.
4. Fully secure the panel to the surface using a total of 10-12 pins (depending on panel size) evenly spaced. Cells should be fully expanded (and tensioned) to the cell size stated on the technical data sheet.
5. Repeat steps 4 and 5 to lay any additional panels required to cover the area. Staple each cell together where adjoining panels meet.
6. Fill the cells with clean angular sub-base material such as Type 4/20mm or Type 20/40mm or as per the engineer's specification (refer to BS7533-13:2009).The cells should be overfilled by a minimum of 25mm and lightly compacted –use of heavy rollers / compaction equipment should be avoided as there is potential to damage the underlying tree roots.

These instructions are provided as a guide only and do not offer any warranty (express or implied) since site conditions and requirements can vary.

Installation guidelines – Erosion control & embankment stabilisation

Groundcell panels can also be used for stabilising soil on embankments to prevent erosion and promote growth of vegetation. The panels should be laid and pinned in the same way as outlined above and then backfilled with topsoil to the specification required.

Technical data

Raw Material	HDPE
Colour	Black
Cell Wall Type	Textured & Perforated
Cell Wall Thickness	1.20mm (tolerance of +/-0.2mm)
Cell Height	100mm 150mm 200mm tolerance of +/-2%)
Cell Size	300mm (tolerance of +/-2%)
Standard Panel Size	4 x 6m* (tolerance of +/-2%) Panel size may vary, please contact the sales team to confirm.
Standard Panel Area	24m² (tolerance of +/-2%)
Seam Tensile Strength	1800 N
Durability & Oxidation Resistance	Predicted to be durable for a minimum of 25 years in natural soils with 4 < pH < 9 and temperatures < 250C. Product has been successfully tested for resistance to oxidation in accordance with PN-EN ISO 13438, PN-EN ISO 527-3.

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