TerraStop Geocell

TerraStop Geocell is 3 dimensional expandable cellular confinement system of various depths made from 1.25mm HDPE. It is used to confine various infill's and provide stability in slopes and channels

INSTALLATION

Installation is as follows:

1. Shape and compact surface to the required profile.
2. Expand Geocell panels to the full open dimension, parallel to the slope direction. Each panel shall be first anchored at the top of the slope in a predetermined trench. Along the slope the geocell shall be fixed with pins. The spacing between the pins, the diameter and length will depend on the slope angle, soil characteristics and loading. Pins placed in a staggered pattern.
3. Panels can be joined by pins, one pin every 2-4 cells. Alternatively cells can be stapled.
4. Infill in the geocell can be soil/grass, gravel, concrete etc.,. To prevent possible damage to the Geocell, limit the drop height of infill's to less than one metre. Soil shall be overtopped by 20mm above the cells and compacted to the required density.
5. Protect soil infills with synthetic or natural fibre blankets (jute).

DESIGN CONSIDERATION

1. Adequate Anchorage at top to minimise stresses transmitted by the pins to the junctions (particularly the upper cell junctions) may break the weld junctions. Can be avoided by increasing the number of pins.
2. Anchorage at toe to minimise soil loss.
3. Avoid intense surface water runoff to minimise intercellular erosion.
4. Insufficient number of pins used or placed incorrectly, localised stress transmitted by the pins to the weld junctions can cause failure. The failure of a junction transmits the over-stress to the adjacent junction, thus producing a progressive failure.