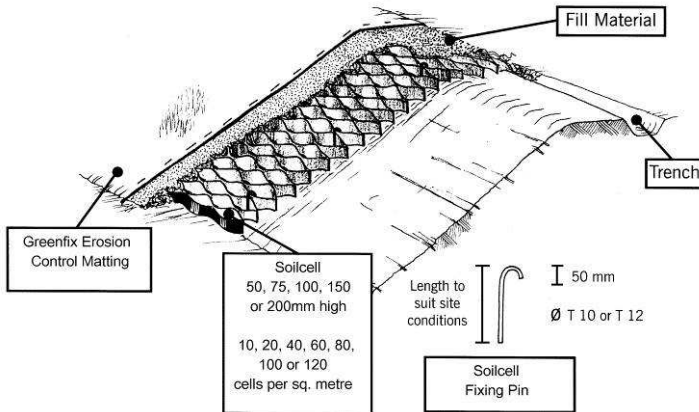
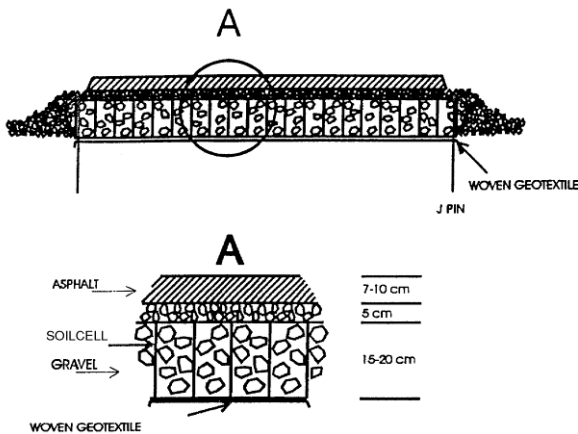


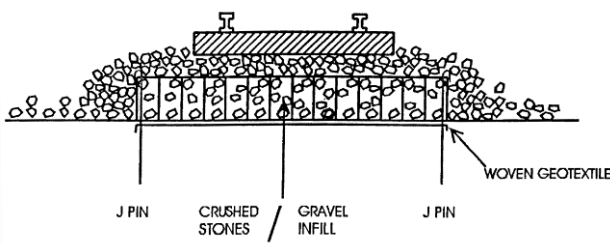
Slopes



Road base stabilisation



Railway stabilisation



Uses

- φ Embankment stabilisation
- φ Erosion control
- φ Retaining of topsoil or gravel on slopes
- φ Road and rail construction
- φ Load bearing soil
- φ Footpaths
- φ Retaining walls
- φ Fire access roads
- φ Reinforced grass
- φ Water course armouring
- φ Plastic liner covering

Soilcell

Phi (Ireland) Ltd. provides full design, supply and installation service on all our products.

Our experienced design teams and installation crews provide clients and contractors with optimum peace of mind and minimum risk.

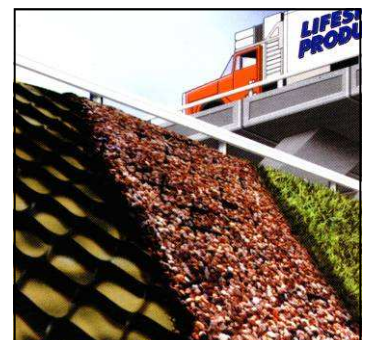
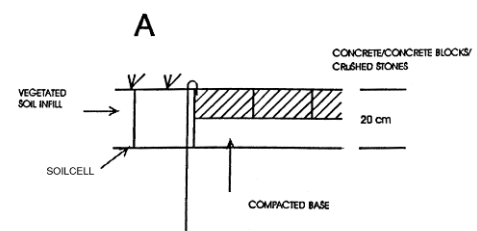
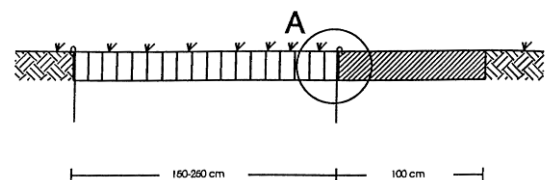
Description

Soilcell is a cellular reinforcement and confinement system. It is highly effective in encapsulating soils and aggregates to prevent migration of materials and is particularly beneficial in preventing soil erosion and failure on steep embankments.

It can increase material shear strength thus reducing fill requirements by up to 50% and its cellular structure can improve soil bearing capacity by up to 17 times.

Soilcell is available in a range of cell sizes and depths to give engineers greater flexibility. It has small enough cells to allow use on slopes with an angle of up to 60°.

Fire access road



Physical Specification

Property	Value
Polymer material	HDPE
Sheet thickness (mm)	1.25mm
No. of cells per m ²	10, 20, 40, 60, 80, 100, 120
Cell height (mm)	50, 75, 100, 150, 200
Carbon black	2-3%
Weight of units	50mm = 13.5kg, 75mm = 20kg, 100mm = 27kg 150mm = 40kg, 200mm = 54kg
Min. seam strength	10N per 1.0mm seam
Colour	Black (others on request)

Quality Specification

Properties	Required Value										Test Method
Material	HDPE										
Density (g/cm ³)	>0.945										ASTM D-792 UNE 53 020 (A)
Carbon Black Content	2-3%										ASTM D 4218
ESCR - Environmental Stress	>1500										ASTM D 1693
Crack Resistance											
Wall thickness (mm)	1.25 (+/-5%)										ASTM D 751 UNE 63 213-2
Ultrasonic welding	Full ultrasonic welding										
Cell height (mm)	50	75	100	150	200						ADTM D4545
Mnimum seam peel strength (N)	500	710	1000	1420	2000						
Unit weight (kg)	13.5	20	27	40	54						
Strip length (m)	4.5										
No. of strips per unit	60										
Cells per sq. m	10	20	30	40	50	65	76	86	106		
Width of each expanded cell (mm)	487	349	272	244	221	188	174	163	152		
Depth of each expanded cell (mm)	426	303	236	213	193	164	151	142	124		
Cells wide (no.)	5	7	9	10	11	13	14	15	16		
Cell long (no.)	29	29	29	29	29	29	29	29	29		
Width of expanded unit (m)	2.50										
Length of expanded unit (m)	12.40	8.80	7.00	6.20	5.60	4.80	4.40	4.10	3.60		
Area per unit (m ²)	31.00	22.00	17.50	15.50	14.00	12.00	11.00	10.25	9.00		

