

TECHNICAL DATASHEET

TECHCELL GC RANGE



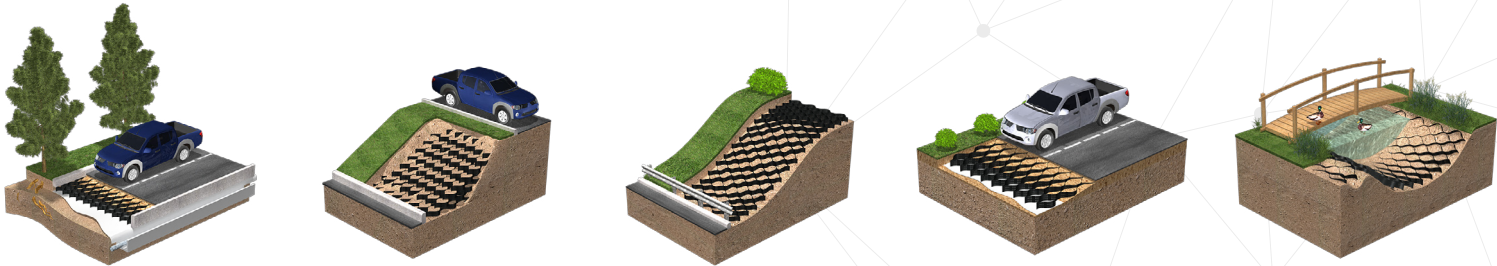
PRODUCT DESCRIPTION

Techcell GC is a stabilising geocellular confinement system available in a range of heights dependent on the thickness of stabilised layer required.

During manufacturing HDPE strips are welded together at intervals to create a network of cells which is then expanded on site. When these cells are infilled with appropriate materials to suit the site conditions and desired application, a new composite entity is created from the cell soil interactions creating a flexible 3D cellular mattress or slab.



Applications include, retaining walls, basal reinforcement, slope stability, tree root protection.



MATERIAL PROPERTIES		UNIT	
POLYMER DENSITY	(ASTM D 1505)	mm	0.935-0.965
ENVIRONMENTAL STRESS CRACKING RESISTANCE	(ASTM D 1693)	mm	≥5000
CARBON BLACK CONTENT	(ASTM D 1603)	mm	2.0
NOMINAL SHEET THICKNESS (POST TEXTURING)	(ASTM D 5199)	mm	1.52
MATERIAL	BLEND OF VARIOUS POLYETHYLENE AND ADDITIVES		
TEXTURE	POLYETHYLENE STRIP CONSISTS OF A MULTIPLE RHOMBOIDAL INDENTATIONS OVER THE ENTIRE STRIP AREA ON BOTH SIDES OF STRIP. THE INDENTATION HAVE A SURFACE DENSITY OF 22 TO 32 PER CM2		
PERFORATIONS	POLYETHYLENE STRIP IS PERFORATED WITH HORIZONTAL ROWS OF MAXIMUM 10MM DIAMETER HOLES. CELL PERFORATIONS AREA IS LESS THAN 12% OF CELL SURFACE AREA.		

CELL PROPERTIES		UNIT		TECHCELL GC		
WELD SPACING (+/-3%)			mm	356		
CELL DEPTH (+/-3%)			mm	75, 100, 150, 200		
EXPANDED CELL DIMENSIONS (+/-3%)	WIDTH		mm	259		
	LENGTH		mm	224		
EXPANDED CELL AREA (+/-3%)			cm²	289		
NOMINAL EXPANDED SECTION DIMENSION (+/-3%)	WIDTH		m	2.59		
	LENGTH		m	6.50		
NOMINAL EXPANDED SECTION AREA			m²	16.82		
SEAM PROPERTIES		CELL DEPTH				
CELL DEPTH (+/-3%)		mm	75	100	150	200
SEAM PEEL STRENGTH (US ACE TECHNICAL REPORT, GL-86-19)		N	1065	1420	2130	2840

P = Perforated panels / S = Solid Panels

The standard configuration of Techcell panels is a panel 6.5m x 2.59m (nominal) when expanded. The standard Techcell panel is specified by the depth and effective cell diameter. Techcell has excellent chemical resistance to a wide range of chemicals normally found in the ground. We will be pleased to advise on specific substances.

REGISTERED OFFICE ADDRESS

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1. TCS Geotechnics is a trading name of Technical Civils Solutions Ltd
2. TCS Geotechnics Ltd reserves the right to alter product specifications without prior notice.
3. It is the responsibility of all users to satisfy themselves that the above data is current.
4. The above figures are typical values obtained from testing to current EN ISO standards
5. TCS Ltd cannot accept responsibility for the performance of these products as the conditions of use are beyond our control.
6. Installation details are available on request.

