

## GeoTech Industries Pvt Ltd

GeoTech is a modern initiative, with advanced, state-of-the-art technology and an enterprising vision of equipping owners, consultants, and contractors with consistently high-quality geosynthetic products. With offerings that meet international quality standards, GeoTech is an innovator and pioneer for geosynthetic solutions, ensuring formidable safety, durability, and performance.

### TUFF-CELL GEOCELL

A Geocell is a three-dimensional, lightweight, expandable system of welded cells creating a stable structure of cellular walls that provide confinement support to slope, base, channel, and vertical applications. By distributing the load across an extended area, the stress on the geocell grid and the sub-grade below is greatly reduced. This allows one to reduce the thickness of the structure in base applications or increase the strength and integrity of the reinforced structure. One can also utilize lower quality fill material when using geocells as the number of cell walls allows for excellent distributed load support as well as provides soil particle retention in slope and channel applications.

Geocells provide increased performance for many different construction applications, either allowing slimmer structures or additional reinforcement. TuffCells are manufactured on our state-of-the-art machinery by extruding UV stabilized textured HDPE strips which are then attached in a cellular form with the help of an automatic ultrasonic welding machine.

Our Geocells are made in a variety of sizes to suit various application.

### Applications

- ✓ Erosion control
- ✓ Ground stabilization
- ✓ Slope protection
- ✓ Railway trackbed stabilization
- ✓ Reservoir & Landfill
- ✓ Hill slope protection
- ✓ Subgrade stabilization
- ✓ Canal slope protection and lining
- ✓ Retaining walls



## GeoTech TUFF - CELL<sup>®</sup> Stabilisation Geocell

### Technical Data - TUFF CELL

Material Properties	Reference Method	Unit	Values
Nominal Sheet Thickness (post texturing) (-3%)	ASTM D 5199	MM	
Environmental Stress Cracking Resistance	ASTM D 1693	HRS	>5000
Polymer Density	ASTM D 1505	g/cm <sup>3</sup>	0.935-0.965
Carbon Black Content	ASTM D 1603	%	Min 2%
Material	Mixture of different polyethylene & additives		
Texture	Polyethylene strip consists of multiple rhomboidal indentations over the entire strip area on both sides of strip. The indentation has a surface density of 22 to 32 per cm <sup>2</sup>		
Perforations	Polyethylene strip is perforated with horizontal rows of maximum 10mm diameter holes. Cell perforations area is less than 12% of cell surface area.		

### GeoTech Tuff Cell Properties

Material Properties		Unit	Product Code				
Weld Spacing (± 3%)		MM	TC 330	TC356	TC 445	TC 660	TC 712
Cell Depth (± 3%)		MM	75,100,125,150,200,250,300				
Expanded Cell Dimensions (± 3%)	Width	MM	244	259	320	488	508
	Length	MM	210	224	287	436	475
Expanded Cell Area (13%)		Cm <sup>2</sup>	250	289	460	1000	1206
Nominal Expanded Section Dimension (+3%)	Width	M	2.44	2.59	3.20	4.88	5.08
	Length	M	6.10	6.50	8.32	12.64	13.78
Nominal Expanded Section Area		M <sup>2</sup>	14.90	16.82	26.63	61.70	70.00



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