

# GeoCell

## Cellular Confinement Systems



# GEO CELL



MATERIAL PROPERTIES	TEST METHOD	UNIT	TEST VALUE
Polymer Density	ASTM D 1505	g/cm <sup>3</sup> (lb/ft <sup>3</sup> )	0.935-0.965 (58.4-60.2)
Environmental Stress Crack Resistance	ASTM D 5397	hours	>400
Environmental Stress Crack Resistance	ASTM D 1693	hours	6,000
Carbon Black Content	ASTM D 1603	% by weight	1.5% minimum
Nominal Sheet Thickness <sup>1</sup> before texturing	ASTM D 5199	mm (mil)	1.27 (50) -5%, +10%
Nominal Sheet Thickness <sup>1</sup> after texturing	ASTM D 5199	mm (mil)	1.52 (60) -5%, +10%

Polyethylene strip shall be textured with a multitude of rhomboidal (diamond shape) indentations. The rhomboidal indentations shall have a surface density of 22 to 31 per cm<sup>2</sup> (140 to 200 per in<sup>2</sup>)

**NOTES:**

1. The Nominal Sheet Thickness is an average thickness of the sheet, taken from the mean of 10 readings.

**GeoCell EGA 20** standard sections are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells and 8 cells wide. Each strip is the appropriate width and 142 inches (3.6m) in length. Weld spacing is 14.0 in ± .12 in (355±3mm). Cell Density is 35 cells per meter squared. Cell walls are textured and if perforations are required 16%± 3% of the cell wall is removed.

GeoCell EGA20					
PHYSICAL PROPERTIES	UNIT	TEST VALUE			
Nominal - Expanded Cell Size (width x length)	mm (in)	259 (10.2) x 224 (8.8)			
Nominal - Expanded Cell Area (width x length)	cm <sup>2</sup> (in <sup>2</sup> )	289 (44.8)			
Nominal - Expanded Panel Size (width x length)	m (ft)	2.56 (8.4) x 6.52 (21.4)			
Nominal - Expanded Panel Area (width x length)	m <sup>2</sup> (ft <sup>2</sup> )	16.7 (180)			
Cell Depth	mm (in)	75 (3)	100 (4)	150 (6)	200 (8)
Seam Peel Strength	N (lbf)	1,065 (240)	1,420 (320)	2,130 (480)	2,840 (640)
Seam Hang Strength	A 102mm (4in) weld joint supporting a load of 72.5 kg (160 lbs) for 30 days minimum or a 102 (4in) weld joint supporting a load of 72.5 kg (160lbs) for 7 days minimum while undergoing temperature change from 23°C (74°F) to 54°C (130°F) on a 1 hour cycle				

**GeoCell EGA 30** standard sections are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells and 8 cells wide. Each strip is the appropriate width and 142 inches (3.6m) in length. Weld spacing is 17.5 in ± .12 in (446±3mm). Cell Density is 22 cells per meter squared. Cell walls are textured and if perforations are required 16%± 3% of the cell wall is removed.

GeoCell EGA30					
PHYSICAL PROPERTIES	UNIT	TEST VALUE			
Nominal - Expanded Cell Size (width x length)	mm (in)	320 (12.6) x 287 (11.3)			
Nominal - Expanded Cell Area (width x length)	cm <sup>2</sup> (in <sup>2</sup> )	460 (71.3)			
Nominal - Expanded Panel Size (width x length)	m (ft)	2.56 (8.4) x 8.35 (27.4)			
Nominal - Expanded Panel Area (width x length)	m <sup>2</sup> (ft <sup>2</sup> )	21.4 (230)			
Cell Depth	mm (in)	75 (3)	100 (4)	150 (6)	200 (8)
Seam Peel Strength	N (lbf)	1,065 (240)	1,420 (320)	2,130 (480)	2,840 (640)
Seam Hang Strength	A 102mm (4in) weld joint supporting a load of 72.5 kg (160 lbs) for 30 days minimum or a 102 (4in) weld joint supporting a load of 72.5 kg (160lbs) for 7 days minimum while undergoing temperature change from 23°C (74°F) to 54°C (130°F) on a 1 hour cycle				

