



Cellular Confinement Systems - Geocell

EGA40



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Envirogrid EGA 40 standard sections are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells and 5 cells wide. Each strip is the appropriate width and 142 inches (3.6m) in length. Weld spacing is 28.0 in ± .12 in (711 ± 3mm). Cell density is 9 cells per meter squared. Cell walls are textured and if perforations are required 16% ± 3% of the cell wall is removed.

Material Properties	Test Method	Unit	Test Value
Polymer Density	ASTM D 1505	g/cm ³ (lb/ft ³)	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	6000
Carbon Black Content	ASTM D 1603	% by weight	1.5% minimum
Nominal Sheet Thickness ⁽¹⁾ before texturing	ASTM D 5199	mm (mil)	1.27 (50) -5%, +10%
Nominal Sheet Thickness ⁽¹⁾ 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 cm² (140 to 200 per in²).

Physical Properties	Unit	Test Value			
Nominal - Expanded Cell Size (width x length)	mm (in)	508 (20) x 475 (18.7)			
Nominal - Expanded Cell Area	cm ² (in ²)	1206 (187)			
Nominal - Expanded Panel Size (width x length)	m (ft)	2.56 (8.4) x 13.72 (45)			
Nominal - Expanded Panel Area	m ² (ft ²)	35.14 (378)			
Cell Depth	mm (in)	75 (3)	100 (4)	150 (6)	200 (8)
Seam Peel Strength	N (lbf)	1065 (240)	1420 (320)	2130 (480)	2840 (640)
Seam Hang Strength	A 102mm (4in) weld joint supporting a load of 72.5 kg (160 lbs) for 30 days minimum or a 102mm (4in) weld joint supporting a load of 72.5 kg (160 lbs) for 7 days minimum while undergoing temperature change from 23°C (74°F) to 54°C (130°F) on a 1 hour cycle.				

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

