

G 3 450

G3 Geocell Adjustable Series is designed to provide more flexibility in section size than regular GeoGrid. Section and cell size will change as each section is expanded to the required dimension. Section length can be increased or decreased by adding or subtracting cells at no additional charge.

G3 Standard section are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells and 10 cells wide. Each strip is the appropriate width and 142 inches (3.6 m) in length. Weld spacing is 18 in ± .12 in (450 ± 3 mm). Cell density is 22 cells per meter squared. Cell walls are smooth and if perforations are required approximately 11% ± 2% of the cell wall is removed.

MATERIAL PROPERTIES	TEST METHOD	UNIT	TEST VALUE
Minimum Polymer Density	ASTM D 1505	g/cm ³ (lb/ft ³)	0.940 (58.7)
Environmental Stress Crack Resistance	ASTM D 1693	hours	3400
Carbon Black Content	ASTM D 1603	% by weight	1.5% minimum
Nominal Sheet Thickness	ASTM D 5199	mm (mil)	1.25 (50)±5%

PHYSICAL PROPERTIES	UNIT	TYPICAL VALUE			
Nominal-Expanded Cell Size (width x length)	mm (in)	320 (12.6) x 287 (11.3)			
Nominal-Expanded Cell Area	cm ² (in ²)	460 (71.3)			
Nominal-Expanded Section (width x length)	m (ft)	2.56 (8.4) x 8.35 (27.4)			
Nominal-Expanded Section Area (width x length)	m ² (ft ²)	21.4 (230)			
Cell Depth	mm (in)	75 (3)	100 (4)	150 (6)	200 (8)
Seam Peel Strength ¹	N (lbs)	1065 (240)	1420 (320)	2130 (480)	2840 (640)
Flexural Strength	--	15 layers of a 102 mm (4 in) perforated material shall be tested for flexural strength (simply supported beam) per ASTM D 790 modified. Minimum value Flexural Stiffness (EI) of 40,000 (lb-in ²), cross-head speed 0.5, in/min, EI = PL ³ /48f _c .			
Section Weight	kg (lbs)	19.5 (43)	25.9 (57)	39 (86)	51.7 (114)
Sections per Pallet	--	60	50	30	25
Seam Hang Strength	--	A 102mm (4 in) weld joint supporting a load of 72.5 kg (160 lbs) for 30 days minimum or a 102 mm (4 in) 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 Seam Peel Strength per U.S. Army Corps of Engineers Technical Report GL-86-19, Appendix A

This information is provided for reference purposes only and is not intended as a warranty or guarantee. Gayatri Geosynthetics assumes no liability in connection with the use of this information. Check with Gayatri Geosynthetics for current, standard minimum quality assurance procedures.



GAYATRI POLYMERS & GEOSYNTHETICS
AN ISO 9001:2008 COMPANY

G 3
650

G3 Geocell Adjustable Series is designed to provide more flexibility in section size than regular GeoGrid. Section and cell size will change as each section is expanded to the required dimension. Section length can be increased or decreased by adding or subtracting cells at no additional charge.

G3 Standard section are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells and 10 cells wide. Each strip is the appropriate width and 142 inches (3.6m) in length. Weld spacing is 26.0 in ± .12 in (650 ± 3mm). Cell density is 9 cells per meter squared. Cell walls are smooth and if perforations are required 11% ± 2% of the cell wall is removed.

MATERIAL PROPERTIES	TEST METHOD	UNIT	TEST VALUE
Minimum Polymer Density	ASTM D 1505	g/cm ³ (lb/ft ³)	0.940 (58.7)
Environmental Stress Crack Resistance	ASTM D 1693	hours	3400
Carbon Black Content	ASTM D 1603	% by weight	1.5% minimum
Nominal Sheet Thickness	ASTM D 5199	mm (mil)	1.25 (50)±5%

PHYSICAL PROPERTIES	UNIT	TYPICAL 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 Section (width x length)	m (ft)	2.56 (8.4) x 13.72 (45)			
Nominal-Expanded Section Area (width x length)	m ² (ft ²)	35.14 (378)			
Cell Depth	mm (in)	75 (3)	100 (4)	150 (6)	200 (8)
Seam Peel Strength ¹	N (lbs)	1065 (240)	1420 (320)	2130 (480)	2840 (640)
Flexural Strength	--	15 layers of a 102mm (4in) perforated material shall be tested for flexural strength (simply supported beam) per ASTM D 790 modified. Minimum value Flexural Stiffness (EI) of 40,000 (lb-in ²), cross-head speed 0.5, in/min, EI = PL ³ /48f _c .			
Section Weight	kg (lbs)	19.5 (43)	25.9 (57)	39 (86)	51.7 (114)
Sections per Pallet	--	60	50	30	25
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 Seam Peel Strength per U.S. Army Corps of Engineers Technical Report GL-86-19, Appendix A

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GAYATRI POLYMERS & GEOSYNTHETICS

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G3 Geocell Adjustable Series is designed to provide more flexibility in section size than regular GeoGrid. Section and cell size will change as each section is expanded to the required dimension. Section length can be increased or decreased by adding or subtracting cells at no additional charge.

G3 Standard sections are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells and 10 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 11% ± 2% of the cell wall is removed.

MATERIAL PROPERTIES	TEST METHOD	UNIT	TEST VALUE
Minimum Polymer Density	ASTM D 1505	g/cm ³ (lb/ft ³)	0.940 (58.7)
Environmental Stress Crack Resistance	ASTM D 1693	hours	3400
Carbon Black Content	ASTM D 1603	% by weight	1.5% minimum
Nominal Sheet Thickness before texturing	ASTM D 5199	mm (mil)	1.27 (50)±5%
Nominal Sheet Thickness after texturing	ASTM D 5199	mm (mil)	1.52 (60)±5%

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	TYPICAL VALUE			
Nominal-Expanded Cell Size (width x length)	mm (in)	259 (10.2) x 224 (8.8)			
Nominal-Expanded Cell Area	cm ² (in ²)	289 (44.8)			
Nominal-Expanded Section (width x length)	m (ft)	2.56 (8.4) x 6.52 (21.4)			
Nominal-Expanded Section Area (width x length)	m ² (ft ²)	16.7 (180)			
Cell Depth	mm (in)	75 (3)	100 (4)	150 (6)	200 (8)
Seam Peel Strength ¹	N (lbs)	1065 (240)	1420 (320)	2130 (480)	2840 (640)
Section Weight	kg(lbs)	19.5 (43)	25.9 (57)	39 (86)	51.7 (114)
Sections per Pallet	--	60	50	30	25
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.			

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Geocell Applications

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