



GeoMaxx Geocells Range

Cellular Confinement System (HDPE)



GeoMaxx Geocells are manufactured from high density polyethylene (HDPE). Geocells are lightweight, expandable cellular confinement systems which create an erosion barrier or structural foundation. This system can be successfully used in slope protection, ground stabilization and retaining walls.

TYPICAL APPLICATIONS

- Erosion protection of slopes and embankments
- Road base stabilization
- Vegetated slope stabilization, non-vegetated slope stabilization, coastal protection, channel/river lining
- Parking areas
- Temporary access roads and forest road stabilization
- Reinforcement of upper layers of railroad bed and railway subgrade
- Improvement and erosion protection of railways and road embankments
- Retaining wall construction

TECHNICAL DATA SHEET

PROPERTIES	UNIT	Nominal Cell Height							TEST
		50mm	75mm	100mm	150mm	200mm	250mm	300mm	
Polymer Type	HDPE (High Density Polyethylene), Density: 0.94 - 0.965 g/cm ³							ASTM D 1505	
Strip Width	mm	50 (±2)	75 (±2)	100 (±2)	150 (±3)	200 (±4)	250 (±5)	300 (±6)	±1mm tolerance
Strip Thickness	mm	1.52 (±0.15mm)							±0.01mm tolerance
Strip Textured Surface	-	Rhomboidal indentations with depth 0.6 mm (±0.05), with surface density from 22 to 32 per 1 cm ² of the strip							±0.01mm tolerance
Strip max. load (without perforation) along strip	kN	1.05	1.6	2.1	3.2	4.2	5.25	6.3	PN-EN ISO 10319:2010
Strip max. load (perforated) along strip	kN	0.63	0.96	1.26	1.92	2.52	3.15	3.78	PN-EN ISO 10319:2010
Elongation at max. load, along strip	%	20 (±15)							PN-EN ISO 10319:2010
Seam strength, Method A: Tensile Shear	kN	1.05	1.6	2.1	3.2	4.2	5.25	6.3	PN-EN ISO 13426-1:2005
Seam strength, Method B: Peeling	kN	0.55	0.8	1.1	1.65	2.2	2.75	3.3	PN-EN ISO 13426-1:2005
Seam strength, Method C: Splitting	kN	1.05	1.6	2.1	3.2	4.2	5.25	6.3	PN-EN ISO 13426-1:2005
Distance between welds before expansion	GWS330 (TN, TP)	mm	330 (±2%)						±1mm tolerance
	GWS356 (TN, TP)		356 (±2%)						
	GWS375 (TN, TP)		375 (±2%)						
	GWS462 (TN, TP)		462 (±2%)						
	GWS660 (TN, TP)		660 (±2%)						
	GWS712 (TN, TP)		N/A	712 (±2%)					
	GWS750 (TN, TP)		N/A	750 (±2%)					



PROPERTIES		UNIT	Nominal Cell Height						TEST
			50mm	75mm	100mm	150mm	200mm	250mm	
Cell length	GWS330 (TN, TP)	mm	203 (±10%)						±1mm tolerance
	GWS356 (TN, TP)		224 (±10%)						
	GWS375 (TN, TP)		250 (±10%)						
	GWS462 (TN, TP)		285 (±10%)						
	GWS660 (TN, TP)		406 (±10%)						
	GWS712 (TN, TP)		N/A	475 (±10%)					
	GWS750 (TN, TP)		N/A	500 (±10%)					
Cell width	GWS330 (TN, TP)	mm	246 (±10%)						±1mm tolerance
	GWS356 (TN, TP)		259 (±10%)						
	GWS375 (TN, TP)		260 (±10%)						
	GWS462 (TN, TP)		345 (±10%)						
	GWS660 (TN, TP)		492 (±10%)						
	GWS712 (TN, TP)		N/A	510 (±10%)					
	GWS750 (TN, TP)		N/A	520 (±10%)					
Nominal section width after expansion	GWS330 (TN, TP)	mm	2460 (±4%)						±1mm tolerance
	GWS356 (TN, TP)		2590 (±4%)						
	GWS375 (TN, TP)		2600 (±10%)						
	GWS462 (TN, TP)		2760 (±4%)						
	GWS660 (TN, TP)		2460 (±4%)						
	GWS712 (TN, TP)		N/A	2550 (±4%)					
	GWS750 (TN, TP)		N/A	2600 (±4%)					
Nominal section length after expansion	GWS330 (TN, TP)	mm	6100 (±4%)						±1mm tolerance
	GWS356 (TN, TP)		6720 (±4%)						
	GWS375 (TN, TP)		7500 (±4%)						
	GWS462 (TN, TP)		8550 (±4%)						
	GWS660 (TN, TP)		12200 (±4%)						
	GWS712 (TN, TP)		N/A	14250 (±4%)					
	GWS750 (TN, TP)		N/A	15000 (±4%)					
DURABILITY									
Material Strength at Yield	Mpa	23						PN-EN ISO 527-2:1998	
Environmental Resistance	h	3600						PN-EN 12225:2002	
Conditions of Use	To be covered on the day of installation. Predicted to be durable for at least 25 years in natural soils with 4 < pH < 9 and soil temperature < 25 °C								

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