

# GEOCELL

## TECHNICAL DATASHEET

<b>Product</b>	Alveolar cell
<b>Composition</b>	Perforated Polyethylene
<b>Main function</b>	Reinforcement

Alveolar cells are structures in the form of beehives deployed on the soil's surface to confine the fill material in the alveoli. This product, by virtue of its geometry, combines flexibility and strength to model the terrain to be covered and retain the fill material while allowing the passage of water thus preventing soil washout and erosion of berms. This geosynthetic is generally used to stabilize berms and stream banks or can even be placed in the foundation of access roads to increase the load-bearing capacity of the soil.

Property	Test Method	Geocell 20 HDPE	Geocell 30 HDPE
<b>Physical</b>			
Polymer density	ASTM D1505	0.935 - 0.965 g/cm <sup>3</sup>	
Environmental stress crack resistance	ASTM D5397 ASTM D1693	> 400 h 6 000 h	
Carbon black content	ASTM D1603	1.5%	
Nominal thickness before texturing (1)	ASTM D5199	1.27 mm	
Nominal thickness after texturing (1)	ASTM D5199	1.52 mm	
<b>Mechanical</b>			
Seam peel strength (2)	-	1065 N / 1420 N / 2130 N / 2840 N	
Seam hang strength	-	A 4 in (102 mm) weld joint supporting a load of 160 lbs (72.5 kg) for 30 days minimum or a 4 in (102 mm) weld joint supporting a load of 160 lbs (72.5 kg) for 7 days minimum while undergoing temperature change from 74°F (23°C) to 130°F (54°C) on a 1 hour cycle	
<b>Hydraulic</b>			
Cell density	-	35 cells/m <sup>2</sup>	22 cells/m <sup>2</sup>
Number of cells per panel	-	29 (length) x 10 (width)	29 (length) x 8 (width)
Expanded cell size (Nominal)	-	259 x 224 mm	320 x 287 mm
Expanded cell area (Nominal)	-	289 cm <sup>2</sup>	460 cm <sup>2</sup>
Expanded panel size (Nominal)	-	2.56 x 6.52 m	2.56 x 8.35 m
Expanded panel area (Nominal)	-	16.7 m <sup>2</sup>	21.4 m <sup>2</sup>
Cell depth	-	75 - 100 - 150 - 200 mm	

This technical information comes from the manufacturer and was transcribed by Texel.

1 - The nominal sheet thickness is an average thickness of the sheet, taken from the mean of 10 readings

2 - Seam peel strength vary in correlation with cell depth. (75mm - 100 mm - 150mm - 200 mm)

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