

Polyrock GG – Type 1

GEOSYNTHETIC SOLUTIONS **



Fibertex
SOUTH AFRICA

Polyrock GG is a lightweight expandable cellular confinement system which creates an erosion barrier or structural foundation. The system is used for slope protection, i.e. erosion control, embankment protection, channel linings, ground stabilisation and retaining walls. The product can be successfully used with natural fill materials with 4<ph.<9 and soil temperatures up to 25 °C and is available in a range of cell configurations, wall heights and colours, either perforated or non-perforated.

SPECIFICATIONS

Effective as at: 28.02.2019

	Property	Value				Test Method
Base Material	Material Composition	Blends of Polyethylene with average density of 0.9425 gsm, up to 0.9650 gsm				ASTM D 1505
	Colour	Black		Other Colours on Request		N/A
	Stabilizer	Carbon Black content 1% - 2% by weight		Hindered Amine Light Stabilizer (HALS) 1% - 2.0% by weight		N/A
	ESCR	Passed				ASTM D 1693
Cell and Section Properties	Cell Details	Cell Height (+/- 3mm)	Nominal Cell Size (cm)	Cell Area (cm ²)	No. Cells per section width	Dimensions & Coverage Area of Regular Section (m ²)
	Polyrock GG 8.5	75mm, 100mm, 150mm, 200mm ¹	52.7 x 44.4	1170	5	2.78 x 16.9 = 47
	Polyrock GG 10		48.8 x 41.0	1000	5	2.57 x 15.58 = 40
	Polyrock GG 20		33.0 x 27.7	457.0	9	3.09 x 10.52 = 32.5
	Polyrock GG 20B		34.2 x 28.7	490.8	9	3.18 x 10.9 = 34.6
	Polyrock GG 34		26.4 x 22.2	293.1	10	2.78 x 8.44 = 23.5
	Polyrock GG 40		24.2 x 20.5	250.1	10	2.57 x 7.79 = 20
Strip Properties	Surface Treatment	All Polyrock GG Geocells (perforated or non-perforated) are made with textured cell walls		Textured with multitude of rhomboidal indentations in depth of 0.2 – 0.5mm		Perforated with multi-horizontal rows of holes of ø20mm each.
	Strip Thickness	Textured 1.4mm (± 10%)				ASTM D 5199

Notes:

1. Other heights are available on request.

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	Property	Value			Test Method
Welded – Joint Strength Properties ²	Weld Strength of Perforated Product (Short Term)	Shear Weld Strength	Peel Weld Strength	Split Weld Strength	EN ISO 13426-1
		Method A	Method B	Method C	
		22.5 kN/m	12.7 kN/m	24.2 kN/m	
	Weld Strength Hang Test (Long Term)	A sample of 100mm wide shall support 72.5kg load for a period of minimum 30 days in an ambient room temperature of 23 °C ± 2 °C			Passed
Other Tensile Strength Properties	Full Perforated Strip Strength Properties	Cell Height	Strength		Internal Test Method based on ISO 10319 adapted to geocells
		65, 75, 100, 150, 200 mm (+/- 3mm) ¹	>19.5 kN/m (20mm holes)		
	Connection of Two Adjacent Sections by Polyrock GG Screws	Cell Height	Strength		
		65, 75, 100, 150, 200 mm (+/- 3mm) ¹	>19.4 kN/m		

Notes:

1. Other heights are available on request.
2. The welding is Ultrasonic Welding.