

# Polyrock EC – Type 1

## PRODUCT DATASHEET



**Polyrock EC** is a lightweight expandable cellular confinement system used as an erosion barrier or structural foundation. Geocells are typically used for slope protection, i.e., erosion control, embankment protection, channel linings, ground stabilisation and retaining walls. The product is available in a range of cell configurations, wall heights and colours, either perforated or non-perforated.

Effective as at: 01.01.2023

SPECIFICATIONS							
PROPERTY		VALUE					TEST METHOD
Base Material	Polymer Composition	Virgin HDPE Basic with density of 0.940gsm to 0.960gsm					ASTM D1505
	Colour	*Black	*Other Colours on Request			ASTM D1603	
	Stabiliser	Carbon Black content >1.5% by weight	Hindered amine light stabilizer (HALS) 1.0% by weight upon request			N/A	
	ESCR	≥7000 hours					ASTM D1693
Cell and Section Properties	Cell Details	Cell Height (+/- 3mm)	Nominal Cell Size (cm)	Cell Area (cm <sup>2</sup> )	Weld Distance (mm)	No. Cells per section width	Dimensions & Coverage Area of Regular Section (m <sup>2</sup> )
	Polyrock EC 8.5	75mm, 100mm, 150mm, 200mm <sup>1</sup>	50.3 x 47.8	1202	712	5	2.52 x 16.25 = 41.0
	Polyrock EC 10		46.6 x 44.2	1030	660	5	2.33 x 15.02 = 35.0
	Polyrock EC 20		31.5 x 30.0	473	445	8	2.52 x 10.20 = 25.7
	Polyrock EC 34		25.2 x 24.0	302	356	10	2.52 x 8.16 = 20.6
	Polyrock EC 40		23.3 x 22.1	258	330	10	2.33 x 7.51 = 17.5
Strip Properties	Surface Treatment	All Polyrock EC Type 1 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 10mm $\varnothing$ holes	
	Strip Thickness	Textured 1.45mm					ASTM D5199

Welded – Joint Strength Properties <sup>2</sup>	Weld Strength (Short Term)	Splitting Weld Strength	Peel Weld Strength	EN ISO 13426-1
		Method C	Method B	
	≥30.0kN/m (28kN/m with i-slot)	≥16.0kN/m (14.5kN/m with i-slot)		
Cell Geometry & Weld Distance				
	Other Tensile Strength Properties	Full Perforated Strip Strength Properties	Cell Height: 75, 100, 150, 200 mm (+/- 3mm) <sup>1</sup>	Strength: >25.0kN/m

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

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+27 31 736 7100 | [salesza@fibertex.com](mailto:salesza@fibertex.com) | [fibertex.com](http://fibertex.com)