

# Geomacell S

## Product specifications



### Product description:

Geocells **Geomacell Standard** are composed of textured and perforated plastic tapes made of high density polyethylene (**HDPE**). A set of tapes with a specific height connected by ultrasonic welding makes up the system similar to a structure of „honeycomb”, which improves the mechanical parameters of aggregate after filling and compacting the aggregate. The spatial structure is designed to optimal transmission of forces, pressures reduction and minimalisation of outlays in order to obtain the appropriate ground parameters on the geotechnically difficult substrates or at unregulated ground and water relations

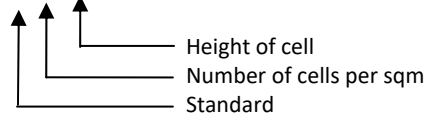
### Function:



### Certificates:



### Example: Geomacell S 38/150



Raw material	Colour	Material density <sup>1)</sup> [g/cm <sup>3</sup> ]	Type of tape	Thickness of tape [mm]
100% HDPE	black	0,935-0,965	textured and perforated	1.3±0.2
Tensile strength of tape MD* <sup>2)</sup> [kN/m]	Tensile strength of tape CMD* <sup>2)</sup> [kN/m]	Elongation at max load MD <sup>2)</sup> [%]	Elongation at max load CMD <sup>2)</sup> [%]	
15	14	15,0 (±8,0)	12,0 (±6,0)	
Number of cells per sqm (after rounding) [kN/m]	Distance between welds at folded position [mm]	Diagonal dimensions of geocell [mm]	Standard section dimensions [m]	Section's area [m <sup>2</sup> ]
39	335	233,3 x 221,7	3,50 x 6,65	23,28
38	340	233,3 x 228,7	3,50 x 6,63	23,21
34	356	250,0 x 234,4	3,50 x 6,56	22,97
32	370	250,0 x 253,9	3,50 x 6,60	23,10
22	445	318,2 x 290,7	3,50 x 6,69	23,40
17	500	350,0 x 336,1	3,50 x 6,72	23,52
14	550	388,9 x 367,2	3,50 x 6,61	23,13
9	680	500,0 x 437,1	3,50 x 6,56	22,95
8	712	500,0 x 482,9	3,50 x 6,76	23,66
7	740	500,0 x 521,2	3,50 x 6,78	23,72

Supplier of product Geomacell S: **GEOMAT s.r.o.**

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Height of cell [mm]	Tensile strength of tape MD* <sup>2)</sup> [kN]	Tensile shear test (Method A) <sup>3)</sup> [kN]	Peeling test (Method B) <sup>3)</sup> [kN]	Splitting test (Method C) <sup>3)</sup> [kN]
25 (±5)	0,38	0,4	0,2	0,35
50 (±5)	0,75	0,8	0,4	0,7
75 (±5)	1,13	1,2	0,6	1,05
100 (±5)	1,5	1,6	0,8	1,4
150 (±5)	2,25	2,4	1,2	2,1
200 (±5)	3	3,2	1,6	2,8
250 (±5)	3,75	4	2	3,5
300 (±5)	4,5	4,8	2,4	4,2

\* Perforated tape (perforation ≤ 16 %) has lower tensile strength; at least 60 % of given value is required.

### Technical Standards:

<sup>1)</sup> ISO 1183-2

<sup>2)</sup> EN ISO 10319

<sup>3)</sup> EN ISO 10321, EN ISO 13426-1

### Durability:

To be covered within one day after installation.

Predicted to be durable for a minimum 100 years in natural soils with 4<pH<9 and soil temperature <25°C.

Unless indicated otherwise, values are determined according to the applicable European standards and are valid as of the date of this document. Products are subject to continuous development and improvement and these values may change over time.

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