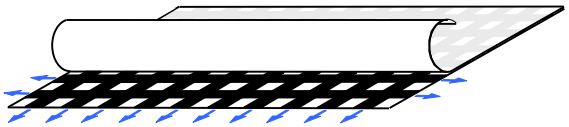
Pozidrain GSD Range

Data Sheet

POZIDRAIN GSD is a geocomposite drainage layer comprising a high performance single cuspated HDPE lattice core with a geotextile filter thermally bonded on both sides. The textile filters have a flap extending beyond the core on opposite edges.
The major application is for use as a drainage layer particularly on shallow slopes in environmental containment.



Geocomposite Properties		G4SD	G6SD	G7SD		
Thickness at 2kPa [4 6]	(mm)	5.5	7.0	8.8	nominal	EN ISO 9863-1
Mass per unit area [4]	(g/m²)	560	610	730	nominal	EN ISO 9864
Tensile strength MD / CMD [4]	(kN/m)	19.0 / 19.0	19.0 / 19.0	19.0 / 19.0	-13%	EN ISO 10319
Elongation at break MD / CMD [4]	(%)	40 / 50	40 / 50	40 / 50	nominal	EN ISO 10319
CBR puncture resistance [4 6]	(N)	3 200	3 200	3 200	-20%	EN ISO 12236
Dynamic perforation cone drop [4 6]	(mm)	16	16	16	+20%	EN ISO 13433
Short term compressive strength	Sufficient for installation pressure < 500kPa					
Compressive creep at 114 years at 20kPa (extrapolated 10,000 hours)	(%)	≤ 5	≤ 5	≤ 5	nominal	EN ISO 25619-1
Compressive creep at 114 years at 250kPa	(%)	≤ 25	≤ 25	≤ 25	nominal	ASTM D7361
Perpendicular Water Inflow						
Water flow at 50mm head	(l/m².s)	101	101	101	±30%	EN ISO 11058
At 2kPa permeability *(coefficient)*	(m/s)	2.6 x 10^{-3}	2.6 x 10^{-3}	2.6 x 10^{-3}	±30%	EN ISO 11058
Breakthrough head	(mm)	0	0	0	nominal	
In-plane water flow MD & CMD	**HG = 1.0**					
20kPa	(l/m.s)	0.30	0.60	1.00	-25%	EN ISO 12958
100kPa	(l/m.s)	0.18	0.35	0.60	-25%	EN ISO 12958
Tested with **soft foam** contact surfaces to simulate textile intrusion into the core due to soil pressure. Hard platen interfaces are not representative of product performance as installed. Suitable for long term 114 year confining pressures up to 250kPa. [5]						
Geotextile Properties						
Thickness at 2kPa [4]	(mm)	1.2	1.2	1.2	nominal	EN ISO 9863-1
Tensile strength MD / CMD [4]	(kN/m)	9.5 / 9.5	9.5 / 9.5	9.5 / 9.5	-13%	EN ISO 10319
CBR puncture resistance [4]	(N)	1 600	1 600	1 600	-20%	EN ISO 12236
Dynamic perforation cone drop [4]	(mm)	29	29	29	+25%	EN ISO 13433
Pore size O_{90}	(µm)	120	120	120	±30%	EN ISO 12956
Type and material	Nonwoven needle-punched and heat-treated long staple fibre polypropylene.					
Durability						
Resistance to UV – Strength retained 50MJ/m²	(%)	> 60	> 60	> 60		EN 12224
Resistance to chemicals – Strength retained 3 ≤ pH ≤ 12	(%)	> 90	> 90	> 90		EN 14030
Design life	100 years in natural soils with 4 ≤ pH ≤ 9 and soil temperatures ≤ 25°C on the basis of the results of test method B.4.2.2 (112 days) of EN 13252:2016 Annex B.					
Product Dimensions						
Product dimensions [3]	Euroliner 4.4m width. Roll length to be advised. Other sizes on request. Container 5.5m width. Roll length to be advised. Other sizes on request. Roll diameter approx. 820mm. Tube ID 100mm.					

1 The values given are determined from statistical Interpretation of test results obtained in our laboratories and are subject to tolerances. In line with our policy of continuous improvement the right is reserved to make changes without notice at any time.
2 Final determination of the suitability of any information is the sole responsibility of the user. ABG will be pleased to discuss the use of this or any other product but responsibility for selection of a material and its application in any specific project remains with the user.
3 The tolerance on roll length is ±1.5% and on roll width is ±1.0%; in multi-core products this may manifest itself between core elements.
4 Thickness, Mass, CBR, Dynamic perforation cone drop and Tensile strength are given only to enable rapid CQA checks.
5 Guidance on interface shear strength, creep, reduction factors and certain other parameters is available. Site specific tests are strongly recommended.
6 Thickness value applies over core lattice members. CBR and Cone Drop values are for textile only; the contribution of the core is ignored.

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