

1BZ GEOCOMPOSITE DRAIN

PRODUCT DESCRIPTION

Extruded high density polyethylene (HDPE) net drainage core with a Non-woven polypropylene (PP) geotextile filter/separator bonded to one side and an extruded (PE/EVA) geomembrane bonded to the other.



TYPICAL APPLICATIONS INCLUDE

- Highways: vertical edge-of-carriageway drains intercept the lateral flow of ground water. Modern fin drains reduce excavation, reduce backfill quantities and reduce installation time. In-slope drainage increases geotechnical stability.
- Retaining walls and bridge abutments: to reduce pore water pressure and avoid backfill saturation.
- Engineered landfills: with the additional requirement of long-term chemical resistance and high compressive strength.
- Tunnels: ground-water-seepage interception between rock face and the tunnel lining.
- Buried structures: Vertical and horizontal drains for basements, culverts, car parks, reservoirs, etc

Terram Net drainage geocomposites are manufactured using Terram T1000LE, a unique geotextile filter developed specifically for use in drainage geocomposites for its high tensile modulus and ability to prevent soil ingress into the void space of the drainage core.

Terram drainage cores are manufactured from HDPE nets which have been engineered to have good flow under high loading.

PROPERTIES	TEST METHOD	UNITS	TOLERANCE	1BZ	
HYDRAULIC PROPERTIES - GEOTEXTILE FILTER					
PORE SIZE - MEAN AOS	EN ISO 12956	µm	±20	75	
PERMEABILITY - (H ₅₀)	EN ISO 11058	l/m ² s	-15	50	
MECHANICAL PROPERTIES - COMPOSITE					
TENSILE STRENGTH	EN ISO 10319	kN/m	MD -2.0 CMD -1.0	13.5 10.0	
TENSILE ELONGATION		%	MD/CMD - ±15	25/35	
CBR PUNCTURE RESISTANCE	EN ISO 12236	N	- 220	2200	
HYDRAULIC PROPERTIES - COMPOSITE					
IN PLANE WATERFLOW MD (HARD PLATENS)	EN ISO 12958	l/m.s	i=1 @ 20kPa	0.70	-0.07
			i=1 @ 100kPa	0.60	-0.06
			i=1 @ 200kPa	0.55	-0.10
IN PLANE WATERFLOW MD (SOFT PLATENS)	EN ISO 12958	l/m.s	i=0.1 @ 20kPa	0.20	-0.05
			i=0.1 @ 100kPa	0.15	-0.04
			i=0.1 @ 200kPa	0.12	-0.03
IN PLANE WATERFLOW MD (SOFT PLATENS)	EN ISO 12958	l/m.s	i=1 @ 20kPa	0.50	-0.05
			i=1 @ 100kPa	0.20	-0.02
			i=1 @ 200kPa	0.10	-0.02
IN PLANE WATERFLOW MD (SOFT PLATENS)	EN ISO 12958	l/m.s	i=0.1 @ 20kPa	0.15	-0.02
			i=0.1 @ 100kPa	0.05	-0.01
			i=0.1 @ 200kPa	0.02	-0.005
PHYSICAL PROPERTIES - COMPOSITE					
THICKNESS @2kPa	EN ISO 9863-1	mm	-0.5	5.0	
MATERIAL DIMENSIONS - COMPOSITE					
STANDARD ROLL LENGTH (S)		m		25/50/100	
STANDARD ROLL WIDTH		m		2/3.8/4.0	
FILTER OVERLAP		mm		100	

Packing and Information

-Terram Geocomposite drains are supplied on cardboard core and wrapped in polyethylene sheeting with identification labels in accordance with ISO 10320.

Storage

-The rolls of geocomposite shall be stored on stable/level ground and stacked not more than five rolls high and no other materials shall be stacked on top. The rolls can be stored outdoors when packaged, but should be protected from exposure to UV. All materials should be stored in accordance with good health and safety practice and in accordance with local laws.

NOTES:

- a) Reported values are arithmetic mean values unless otherwise stated, a set of test results shall be those results derived from specimens cut from one sample and taken across the full width of the roll. For sampling, EN ISO 9862 should be applied, i.e. samples should be taken not less than 5m from the end of the roll in machine direction and over the whole width in the cross machine direction. The location of the sample should be described exactly. Applied tolerances are based on 95% confidence limits, this is the value below which not more than 5% of the test results may be expected to fall. For evaluation of conformance, statistical procedure should be used in line with section 5.2 of CEN/TR 15019:2004. the tolerance value provided for tensile elongation is based on an absolute value; e.g.60% +20%=40%-8%.
- b) A nominal value indicates that the value is not part of the performance specification and is provided for guidance only.

REGISTERED OFFICE ADDRESS

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1. TCS Geotechnics is a trading name of Technical Civils Solutions Ltd.
2. TCS Geotechnics Ltd reserves the right to alter product specifications without prior notice.
3. It is the responsibility of all users to satisfy themselves that the above data is current.
4. The above figures are average values obtained from testing to current EN ISO standards.
5. TCS Ltd cannot accept responsibility for the performance of these products as the conditions of use are beyond our control.
6. Installation details are available on request.

