MACCAFERRI

TECHNICAL DATA SHEET
Rev. 03a, Date 08.08.2019

TERRADRAIN® M 1181
DRAINAGE COMPOSITE

Geocomposite for planar drainage (GCD), made by thermobonding a drainage core of extruded monofilaments having a biconical cuspated shape (GMA) with two filtering geotextiles (GTX) that may also be working as separation or protecting layers.

TerraDrain®	Standard	Unit	Value	Tolerance	Note
GEOCOMPOSITE (GCD)					
Thickness at 2 kPa	EN 9863-1	mm	19	- 2	1, 3
Thickness at 20 kPa	EN 9863-1	mm	-	-	1, 3
Mass per unit area	EN ISO 9864	g/m^2	790	± 15%	1, 3
Tensile strength MD	EN ISO 10319	kN/m	15.0	- 2.0	2, 4
In plane flow capacity MD	EN ISO 12958	l/(m s)		± 30%	1, 2, 4
	gradient i =	0.03	1.0		
Soft/Soft contact	20 kPa	-	4.20		2, 4
Rigid/Soft contact	20 kPa	0.50	4.40		1, 4
	50 kPa	0.19	1.20		1, 4
	100 kPa	0.02	0.30		1, 4
Durability Type			II	I	
Durable in natural soil with 4<pH<9 and soil temperature <25°C for a minimum service life of		25yy	50yy	100yy	2
EXTERNAL FILTERS (GTX)					
Structure: nonwoven geotextile					
Raw material: UV stabilized polyolefin					
Mass per unit area	EN ISO 9864	g/m^2	120	± 15%	1, 3
Thickness at 2 kPa	EN ISO 9863-1	mm	0.75	± 20%	1, 3
Tensile strength MD & CMD	EN ISO 10319	kN/m	8.0	- 1.3	1, 4
Static puncture resistance	EN ISO 12236	N	1400	- 20%	1, 4
Dynamic puncture resistance	EN ISO 13433	mm	33	+ 15	1, 4
Flux perpendicular to the plane	EN ISO 11058	l/(m^2 s)	100	- 30%	1, 4
Characteristic opening size O_{90}	EN ISO 12956	micron	110	± 50	1, 4
DRAINAGE CORE (GMA)					
Structure: three dimensional geomats made by extruded monofilaments set in biconical cuspated shape					
Raw material: polypropylene UV stabilized by carbon black					
Mass per unit area	EN ISO 9864	g/m^2	550	± 10%	1, 3



1) Informative value not reported in the DoP;
2) Certified value reported in the DoP;
3) Nominal value; if not differently indicated a standard 10% tolerance value is admitted;
4) Characteristic value corresponds to the mean value deducted the tolerance and corresponds to the MARV at 95% of confidence limit.
5) Values reported in the EPD certificate KIWA-EE- 000376-EN issued in accordance with EN15804+A2: 2019 and ISO14025 with validity till April 2029. The reported values are selected among the 13 mandatory certified values (EN 15804+A2:2019) and referred to the Product Stage A1-A3. Additional environmental impact indicators and different Product Stages valid for Life Cycle Assessment are reported in the full EPD certificate of the product

Variable width and length according to the project requirements can be available depending on the production plan and the machines availability. Check stock position with the logistic dept. Special products can be manufactured on request for specific projects.

MD: longitudinal direction; CMD: transversal direction

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