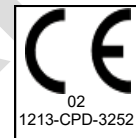
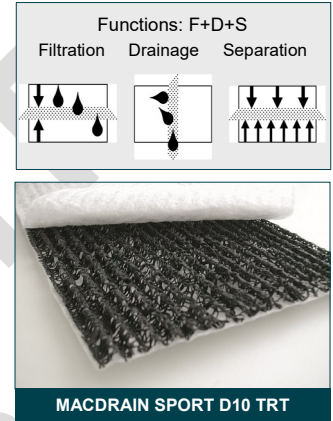


## MACDRAIN SPORT D10 TRT

### HIGH PERMEABILITY DRAINAGE COMPOSITE FOR SPORT PITCHES

**Geocomposite for planar drainage systems**, produced by thermobonding a draining core in extruded Polypropylene monofilaments with two filtering nonwoven geotextiles. The geotextiles have characteristics of high permeability. The product is supplied in rolls having a trimmed profile (no overlap is needed on site)

Properties	Standard	Unit	Value	Tolerances
<b>Geocomposite</b>				
Thickness at 2 kPa	EN ISO 9863-1	mm	10.0	±10%
Mass per unit area	EN ISO 9864	g/m <sup>2</sup>	1140	±10%
Tensile strength MD/CMD	EN ISO 10319	kN/m	15.0	±2%
Dimensional stability	UNI EN 13746	%	≤ 0.5	-
Shock absorption 3 points	UNI EN 14808	%	40	± 20
Horizontal hydraulic capacity	MI-LND 021 (*)	l/(m·s)	≥ 0.25	-
In-plane flow capacity MD	EN ISO 12958	l/(m·s)	See table below	±15%
Hydraulic gradient:				
Contacts:	Load	0.03	1.00	
Soft/soft	20 kPa	-	4.42(**)	(**) CE flow
	20 kPa	0.62	4.42	
Soft/rigid	100 kPa	0.44	3.19	
	200 kPa	0.34	2.47	
<b>Filter Layers (Top filter = TF , bottom filter = BT)</b>				
Structure	Top filter (TF): mechanically bonded non woven Bottom filter (BF): mechanically bonded and thermotreated non woven			
Raw material	Polypropylene, UV-stabilized			
Tensile strength MD/CMD	EN ISO 10319	kN/m	TF 7.0 / BF 7.5	± 20%
Static puncture resistance	EN ISO 12236	N	TF 1000 / BF 1300	± 15%
Dynamic perforation resistance	EN ISO 13433	mm	TF 25 / BF 36	± 20%
Flux normal to the plane	EN ISO 11058	l/(m <sup>2</sup> ·s)	110	± 30%
Vertical Permeability	EN ISO 12616	mm/h	TF > 30000	-
Characteristic opening size O <sub>90</sub>	EN ISO 12956	micron	TF 110 / BF 100	± 30%
Width	-	cm	200/385/400	± 2 %
<b>Drainage core</b>				
Structure	Three dimensional geomat consisting of extruded monofilaments arranged in channels parallel to MD direction			
Raw material	Polypropylene, UV-stabilised by carbon-black			
Width	-	cm	200/385/400	± 2 %
<b>Standard Geocomposite sizes</b>				
Width	-	cm	200/385/400	± 2 %
Length	-	m	On demand	-0 m / +1 m
Selvages	-	Absent (product trimmed on both sides)		



Quality System certified according to UNI EN ISO 9001:2008

Approved by LND/FIGC (Italian Football Amateur League)

Test directions:  
MD= machine direction;  
CMD= cross machine direction;

When a tolerance is displayed, it refers to a 95% confidence level.

Durability - Predicted to be durable for a minimum of 25 years in natural soils with 4<pH<9 and soil temperatures <25°C.

Product has to be covered within 14 days after installation.

(\*\*) Test prescribed by LND/FIGC (Italian Football Amateur League)

For the optimisation and improvement process of the technical characteristics of the products, the manufacturer reserves the right to modify the standard characteristics of the product without any notice. The informations contained herein are to the best of our knowledge accurate, but since the circumstances and conditions in which it may be used are beyond our control, we do not accept any liability for any loss or damage, however arising, which results directly or indirectly from the use of such information nor we do offer any warranty or immunity against patent infringement.

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