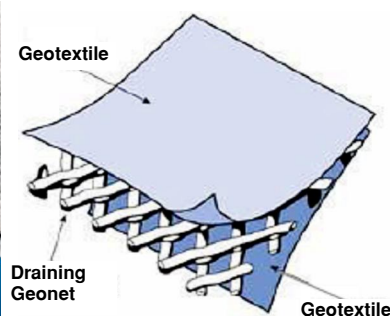
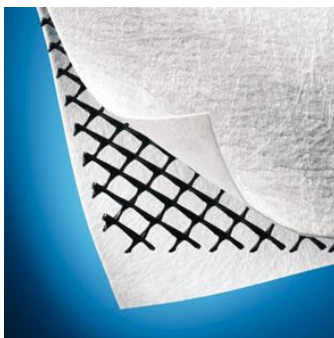


## MACDRAIN™ N 1051 DRAINAGE COMPOSITE

Geocomposite for planar drainage manufactured by thermobonding a draining core - HDPE geonet done by two sets of parallel overlaid ribs integrally connected to have a rhomboidal shape (GNT) - with two nonwoven geotextile (GTX), working as separation, filtration and protection layers.

	Standard	Unit	Value	Tolerance
<b>EXTERNAL FILTERS (GTX)</b>				
Structure: needlepunched and/or thermobonded nonwoven geotextiles				
Raw Material: 100% UV stabilized polyolefin				
Mass per unit area	EN ISO 9864	g/m <sup>2</sup>	130	average value
Tensile strength MD & CMD	EN ISO 10319	kN/m	8	average value
Flux perpendicular to the plane	EN ISO 11058	l/(m <sup>2</sup> .s)	100	average value
Characteristic opening size O <sub>90</sub>	EN ISO 12956	micron	150	average value
<b>DRAINAGE CORE (GNT)</b>				
Structure: sets of parallel ribs overlaid and integrally connected having a rhomboidal shape				
Raw Material: high density polyethylene, UV stabilized by carbon black, black colour				
Mass per unit area	EN ISO 9864	g/m <sup>2</sup>	410	typical value
Width		cm	200 or 400	typical value
<b>GEOCOMPOSITE (GCO)</b>				
Thickness at 2 kPa	EN 9863-1	mm	5.0	average value
Mass per unit area	EN ISO 9864	g/m <sup>2</sup>	670	average value
Static puncture resistance	EN ISO 12236	N	3300	average value
Tensile strength MD	EN ISO 10319	kN/m	20	average value
Strain at max load MD	EN ISO 10319	%	40	+/-20%
Tensile strength CMD	EN ISO 10319	kN/m	15.5	average value
In plane flow capacity MD	EN ISO 12958	l/(m.s)	l/(m.s)	average value
	gradient i =	1.0	1.0	
	type of contact	S/S	R/R	
	20 kPa	-	0.70	
	100 kPa	-	0.65	
	200 kPa	-	0.58	
<b>STANDARD DIMENSIONS OF GEOCOMPOSITE</b>				
Roll height		m	2.0 or 4.0	typical value
Length		m	25 - 50 or 100	typical value
Filter overlay (one side)		mm	100	typical value



MD = longitudinal direction  
 CMD = trasversal direction  
 S/S = contact type soft/soft  
 R/R = contact type rigid/rigid

The producer, for his optimisation and improving process of the product's technical characteristics, has the faculty to modify the standards and the characteristics of the product without any pre-advise. All the information are given in base to our experience; in any case no responsibility for an incorrect use could be referred to the producer or one of his distributors.

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Bureau Veritas Certified Quality System Company  
 with SINCERT's and UKAS's accreditation.