


## MACDRAIN™ 1L GEOCOMPOSITE FOR DRAINAGE

MacDrain™ 1L is a light and flexible geocomposite material which has a drainage core of looped polypropylene filaments. One side of this material is covered with a polyester non-woven geotextile, providing a high drainage capacity. The two components are thermally welded all along the surface. The geotextile exceeds the drainage core edge by 100 mm. A continuous surface filtering is achieved by overlapping the butt-joint of the adjacent MacDrain™ 1L strips.

FLOW CAPACITY													
ASTM D4716		Horizontal Drainage						Vertical Drainage					
Hydraulic gradient		i = 0,01		i = 0,02		i = 0,03		i = 0,10		i = 0,50	i = 1,00		
Pressure		l / s.m	l / h.m	l / s.m	l / h.m	l / s.m	l / h.m	l / s.m	l / h.m	l / s.m	l / h.m		
10kPa		0,43	1584	0,54	1944	0,66	2376	1,36	4932	2,85	10296	4,23	15264
20kPa		0,29	1080	0,35	1260	0,42	1548	0,92	3312	1,58	5724	2,97	10692
50kPa		0,08	324	0,36	1296	0,14	540	0,32	1188	0,75	2700	1,14	4104
100kPa		0,03	144	0,04	180	0,05	216	0,09	324	0,24	864	0,39	1440
200kPa		0,01	72	0,01	72	0,02	72	0,03	108	0,31	1152	0,56	2016
PHYSICAL PROPERTIES													
		Standard		Unit		Geocomposite		Geotextile					
Mass per unit area		ABNT NBR 12563 / ASTM D5261		g/m <sup>2</sup>		550		100					
Thickness		ABNT NBR 12569 / ASTM D5199		mm		12,0		0,7					
HYDRAULIC PROPERTIES													
		Standard		Unit		Geocomposite		Geotextile					
Open size		AFNOR G38017		mm		-		0,145					
Permittivity		ASTM D4491		s <sup>-1</sup>		-		1,51					
Permeability		ASTM D4491		cm/s		-		1,1 X 10 <sup>-1</sup>					
MECHANICAL PROPERTIES													
		Standard		Unit		Geocomposite		Geotextile					
Machine - Tensile Strength		ABNT NBR 12824 / ASTM D4595		kN/m		8,34		5,26					
- Elongation		ABNT NBR 12824 / ASTM D4595		%		30,44		37,38					
Across - Tensile Strength		ABNT NBR 12824 / ASTM D4595		kN/m		5,47		2,92					
- Elongation		ABNT NBR 12824 / ASTM D4595		%		33,57		36,26					
Puncture resistance		ABNT NBR 13359 / ASTM D4833		N		-		602,50					
ROLL DIMENSIONS													
		Unit		Geocomposite									
Width		m		2									
Length		m		30									
Area		m <sup>2</sup>		60									
Diameter		m		0,70									
Weight		kg		33,0									

