



TERRE ARmee



Internal Drainage



TerraDrain

GEOCOMPOSITE CELLULAR DRAIN BOARD

Drainage under Lawns

TerraDrain

TerraDrain is modular light weight, high strength and high impact cellular drain board wrapped with a custom designed geotextile and used for subsurface drainage. The drainage board and the non-woven geotextile used in TerraDrain are manufactured from polypropylene.

TerraDrain is easy to install and individual panels are connected by interlocking them horizontally and vertically. The open surface design and high internal void volume enables the rapid capture and transport of high amount of water.

Applications

- **Lawns and any Landscapes:** TerraDrain is very useful for draining out water from the root zone of lawns and any landscapes. It safeguards the grass and planters when used below the topsoil.
- **Terrace Gardens and Sports Fields:** TerraDrain can effectively work under the turfing of terrace gardens and sports fields to avoid any waterlogging, which may result from heavy rainfall.
- **MSE Walls/ Slopes, Buried Structures and Embankments:** TerraDrain can be used as an alternative to sub-surface horizontal aggregate drains in MSE walls/ slopes and any other buried structures or embankments to effectively drain out the ingressed water.
- **Protection of Geomembranes:** TerraDrain can be used as a protection layer over waterproofing membranes, and it can also create a thermal insulation barrier.

Technical Parameters

Properties	Test Method	Unit	TerraDrain 20	TerraDrain 30	
Cellular Drainage Board					
Physical Properties					
Material			High-Impact Resistant Polypropylene	High-Impact Resistant Polypropylene	
Mechanical Properties					
Compressive Strength		ton/m ²	Above 120 tons when tested	Above 160 tons when tested	
Filter GeoTextile			Minimum Average Roll Value (MARV)ⁱ		
Physical Properties					
Type of Product			Non Woven		
Mass per Unit Area	ASTM D 5261	g/m ²	120		
Material			100% PP		
Mechanical Properties					
Tensile Strength (MD/CD) ⁱⁱ	ASTM D 4595	kN/m	6.0/6.0		
CBR Puncture Resistance	ASTM D 6241	N	1020		
Hydraulic Properties					
Permittivity	ASTM D 4491	sec ⁻¹	2.4		
Maximum Apparent Opening Size (AOS) ⁱ	ASTM D 4751	mm	0.2		
UV Resistance at 500 hrs	ASTM D 4355	%	70		
In Plane Water Flow Rate* (Permeability)	Hydraulic Gradient, i=1 at 20kPa pressure	ASTM D 4716	l/m.s	1.98	4.95
	Hydraulic Gradient, i=1 at 100kPa pressure			1.98	4.62
	Hydraulic Gradient, i=1 at 200kPa pressure			1.98	4.62
*Composite: Drainage Board+ GeoTextile					
Standard Packaging					
Dimension of Drainage Board (length x width x thickness) ^{iv}		mm	500 x 250 x 20	500 x 250 x 30	
Estimated Weight (Drainage Board) ⁱⁱⁱ		kg	2.0	3.0	
Dimension of Geotextile (width x length) ^{iv}		m	5 x 100	5 x 100	
Estimated Weight (Geotextile) ⁱⁱⁱ		kg	62	62	

ⁱ All the values mentioned are of Minimum Average Roll Values (MARV) except for Apparent opening size (AOS) which is Maximum average roll value (MaxARV)

ⁱⁱ MD- Machine Direction, CD- Cross Machine Direction

ⁱⁱⁱ These values are subject to ±1% variation

^{iv} TerraDrain of other sizes are also available

NOTES

A. Properties are subject to change without notification. Please contact us for the latest update on the specifications.

B. The property values listed above are effective: February 2022.

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