



Properties of Geocomposite Drain (Vertical)			
Sr. No	Property	Test Method	Value
<b>I Composite Drain (Non-woven geotextile on both sides)</b>			
1	Tensile Strength	ASTM D4595 - 2017	20 KN/m in both MD & CD ( $\pm 10\%$ )
2	In-plane Water Flow (Min.) (For $i=1.0$ , Soft/Soft Contacts) At 200 kPa (To be tested in lab)	ASTM D4716 - 2014	1.5 lit/m.sec.
3	Static Puncture Resistance CBR(*)	ASTM D6241 - 2014	3000 N
4	Ultraviolet Stability Requirement after 500 Hours of exposure (*) Retained breaking strength in Strip Tensile Test	ASTM D4355 - 2018	Not less than 70% (After unwrapping, the Geocomposite should be installed and covered within a maximum of 14 days)
5	Minimum retained Ultimate Tensile Strength (*)	EN:12447-2001 and EN ISO: 13438 - 2004	50% (tested as per Clause B.4 of EN: 13250 - 2016, for 100 year service life)
<b>II Core</b>			
1	Minimum retained Ultimate Tensile Strength (*)		HDPE/Polypropylene/Polyethylene or combination thereof
<b>III Filter (Non-woven Geotextile)</b>			
1	Material		Polypropylene/Polyamide/ Polyethylene, Polyester or combination thereof
2	Type/Structure		Non-woven Needle Punched & Mechanically or Thermally bonded type or equivalent
3	Permeability (Perpendicular to Plane)	ASTM D4491-2016	70 lit./m <sup>2</sup> .s (Min.)
4	Apparent Opening Size	ASTM D4751-2016	150 Micron (Max.)
5	Puncture Strength - CBR (*)	ASTM D6241-2014	
6	Ultraviolet Stability Requirement after 500 Hours of exposure (*) Retained breaking strength in Strip Tensile Test	ASTM D4355 - 2018	Polypropylene/Polyamide/ Polyethylene, Polyester or combination thereof
*MD: Machine Direction (Longitudinal to the roll)			
*CD: Transverse Direction i.e., 90° to MD, (Across the roll width)			
*Is Minimum Average Roll Value (MARV), which is derived statistically as average value minus two standard deviations.			