



| Properties of Geocomposite Drain (Horizontal) | | | |
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| Sr. No | Property | Test Method | Value |
| I Composite Drain (Non-woven geotextile on both sides) | | | |
| 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 | 0.45 lit/m.sec. |
| 3 | Static Puncture Resistance CBR(*) | ASTM D6241 - 2014 | 3000 N |
| 4 | Tensile 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) |
| 6 | Resistance to Installation damage { % retained of In - plane Water Flow (Min.) (For $i=1.0$, Soft/Soft Contacts) At 200 kPa (To be tested in lab) } | ASTM - D5818 - 2018 | 90% |
| II Core | | | |
| 1 | Material | | HDPE/Polypropylene/Polyethylene or combination thereof |
| III Filter (Non-woven Geotextile) | | | |
| 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 ² .s (Min.) |
| 4 | Apparent Opening Size | ASTM D4751 - 2016 | 150 Micron (Max.) |
| 5 | Puncture Strength CBR (*) | ASTM D6241 - 2014 | 1400 N |
| 6 | 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) |
| *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. | | | |