

Sl. No.	Tests	Minimum Quantity Required	Test Charges (Rs.) per Sample
✓	GEOTEXTILES		
	I. WOVEN GEO-FABRICS		
28)	Mass per square metre [ASTM D: 5261 / ASTM D: 3776 / ISO: 9864 / IS: 14716]	1 m ²	500
29)	Tensile Strength & Elongation (Warp and Weft) [ASTM D: 5035 / IS: 1969]	1 m ²	1000
30)	UV Resistance Exposure to Light Moisture & Heat in Xenon Arc Type Apparatus [ASTM D: 4355 / BS EN: 12224 / GRI: 155]	2 m ²	90 per hour
31)	Tensile Strength (Before & After Exposure UV Xenon Arc) [ASTM D: 5035]		2000
32)	Trapezoid Tear (Warp & Weft) [ASTM D: 4533]	1 m ²	1250
33)	Index Puncture Resistance [ASTM D: 4833]	1 m ²	1450
34)	Apparent Opening Size [ASTM D: 4751]	1 m ²	750
35)	Water Permeability [ASTM D: 4491 / BS: 6906-3 / IS: 14324 / ISO: 11058]	1 m ²	2100
36)	Grab Tensile Strength & Elongation [ASTM D: 4632]	1 m ²	1300
37)	Ball Bursting [ASTM D: 751 / D: 3787]		1450
38)	Thickness [ASTM D: 5199]	0.5 m ²	300
39)	Cone Drop Test [EN: 918 / ISO: 13433] (Dynamic Puncture Test)	1 m ²	460
40)	Seam Strength [ASTM D: 4884 / ISO: 10321]	1 m ²	2000
41)	Pore Size by Porometer [ASTM D: 6767]	1 m ²	1500
42)	Abrasion Resistance [ASTM D: 4886]	1 m ²	4400

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	Tensile Strength (Before & After by ASTM D: 5035)		
43)	CBR Puncture Strength [ASTM D: 6241] [ISO:12236]	1 m ²	2700
44)	Asphalt Retention Test [ASTM D: 6140]	0.5 m	5500
45)	Pull out resistance in soil [ASTM D:6706 / DIN EN 13738]	2 m ²	5000
46)	Chemical resistance (acid & alkali) of geotextiles [DIN EN 14030]	2 m ²	6000 + 6000
47)	Deterioration of geotextiles from outdoor exposure [ASTM D:5970]	2 m ²	10000
48)	Resistance to oxidation [ISO 13438]	1 m ²	5000 [14 days] 6000 [28 days] 7000 [72 days]
	II. NONWOVEN GEO-FABRICS		
49)	Mass per square metre [ASTM D: 5261 / ISO: 9864]	1 m ²	500
50)	Wide Width Tensile Strength Machine Direction & Cross Direction [ASTM D: 4595 / EN ISO: 10319]	1 m ²	3575
51)	Grab Breaking Load Machine Direction & Cross Direction [ASTM D: 4632]	1 m ²	1300
52)	Thickness [ASTM D: 5199]	0.5 m ²	500
53)	Ball Bursting Strength [ASTM D:3787]	1 m ²	1450
54)	Diaphragm Bursting Strength [ASTM D: 3786]	1 m ²	750

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55)	Index Puncture Resistance [ASTM D: 4833]	1 m ²	1450
56)	Trapezoid Tear Strength [ASTM D: 4533]	1 m ²	1250
57)	Cone Drop Test (Dynamic Puncture Test) [EN: 918 / ISO: 13433]	1 m ²	750
58)	Static Puncture Strength (CBR Puncture Strength) [ASTM D: 6241 / BS EN ISO: 12236]	1 m ²	2720
59)	Apparent Opening Size [ASTM D: 4751]	1.5 m ²	750
60)	Pore Size by Porometer [ASTM D: 6767]	0.5 m ²	1500
61)	Water Permeability of Filter [ASTM D: 4491 / BS: 6906 / ISO: 11058]	1 m ²	2100
62)	Seam Strength [ASTM D: 4884 / ISO: 10321]	1 m ²	2100
63)	Abrasion Resistance [ASTM D: 4886] Tensile Strength (Before & After by ASTM D: 5035)]	1 m ²	4400
64)	Pull out resistance in soil [ASTM D:6706 / DIN EN 13738]	2 m ²	5000
65)	Chemical resistance (acid & alkali) [DIN EN 14030]	2 m ²	6000 + 6000
66)	Deterioration from outdoor exposure [ASTM D:5970]	2 m ²	10000
67)	UV Resistance by Xenon arc lamp [ASTM D:4355]		90 per hour
68)	Hydraulic transmissivity using a constant head [ASTM D:4716]	2 m ²	3000
69)	Resistance to oxidation [ISO 13438]	1 m ²	5000 [14 days]

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			6000 [28 days] 7000 [72 days]
	III. PVD BAND DRAIN		
70)	Width	1 m	300
71)	Weight per Linear Metre	5 m	750
72)	Tensile Strength & Elongation (Wide Width) [ASTM D: 4595]	1 m	3575
73)	Water Permeability of Filter [ASTM D: 4491 / BS: 6906]	1 m	2100
74)	Thickness of Composite [ASTM D: 5199]	1 m	500
75)	Tensile Strength of Core [ASTM D: 4595]	1 m	3575
76)	Grab Strength & Elongation at Break for PVD Filter [ASTM D: 4632]	2 m	1250
77)	Trapezoid Tear for Filter Component only [ASTM D: 4533]	2 m	1250
	IV. GEO-MEMBRANE LINER		
78)	Thickness [ASTM D: 5199]	0.5 m ²	500
79)	Density [ASTM D: 792]	0.25 m ²	800
80)	Tensile Strength [ASTM D: 6693]	1 m ²	1320
81)	Tear Strength [ASTM D: 1004]	1 m ²	1320
82)	Puncture Resistance [ASTM D: 4833]	1 m ²	1450

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83)	Pyramid puncture resistance [ASTM D:5494 / DIN EN 14574]	2 m ²	1500
84)	Mass per square metre [ASTM D: 5261 / ISO: 9864]	1 m ²	600
85)	Carbon Black Content [ASTM D: 1603]	0.25 m ²	1320
86)	Melt Flow Index [ASTM D: 1268]	0.25 m ²	1200
87)	Environmental Stress Crack Resistance (ESCR) [ASTM D: 1693 / DIN EN: 14576]	0.25 m ²	25 per hour
88)	Stress Crack Resistance (ASTM D:5397)		40 per hour
89)	Tensile Strength by Wide Width Strip Method [ASTM D:4885]	1 m ²	4000
90)	Air-oven ageing of polyolefin Geomembranes [ASTM D:5721]		Charges as per requirement
91)	Integrity of seams produced using thermo fusion method for Reinforced Geomembranes by Strip Tensile Method [ASTM D:7747]	1 m ²	2000
92)	Integrity of seams produced using thermo fusion method for Reinforced Geomembranes by Grab Method [ASTM D:7749]	1 m ²	2000
93)	2% Secant Modulus of Polyethylene Geomembrane [ASTM D: 5323]	1 m ²	1485
94)	Chemical resistance to liquids [ASTM D:5747]	1 m ²	3000 + 3000
95)	Resistance to oxidation [DIN EN 14575]	1 m ²	5000 [14 days]

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			6000 [28 days] 7000 [72 days]
96)	Tensile strength before and after oxidation		2000
	V. GEOSYNTHETIC CLAY LINER		
97)	Mass per square metre [ASTM D:5993 / DIN EN 14196]	1 m ²	600
98)	Bentonite Swell Index [ASTM D: 5890]		500
99)	Grab Strength [ASTM D: 4632]		1800
100)	Tensile Strength [ASTM D: 6768]		3500
101)	Peel Strength [ASTM D: 6469]	1 m ²	2000
	VI. GEO-GRID		
102)	Tensile Strength & Elongation (Single Rib) [ASTM D: 6637 A] (Multi Rib) [ASTM D: 6637 B]	3 m ²	1200 2200
103)	Junction Strength [ASTM D:7737 / GG-2]		600
104)	Carbon Black Content [ASTM D: 1603]	0.25 m ²	1320
105)	Melt Flow Index [ASTM D: 1268]	0.25 m ²	1200
106)	Mass per square metre [ASTM D: 5261 / ISO: 9864]	1 m ²	550
107)	Aperture Size & Number of ribs per metre	0.5 m ²	350

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	VII. GEONETS		
108)	Breaking force [ASTM D:7179]	1 m ²	2000
109)	Resistance to Chemicals (acid & alkali)		5000 + 5000
	VIII. GEOCELLS		
110)	Weld strength [ISO 13426 / BTRA developed method]		2000
	IX. ROPE GABION		
111)	Size of the Gabion	Actual	300
112)	Thickness of Rope	1 m	300
113)	Weight per Linear Metre	5 m	550
114)	Tensile Strength of Rope [IS: 7071]	6 m	1050
115)	Identification of material of Rope [TGA / DSC]	0.25 m	3850
116)	Tensile Strength (Before & After Exposure UV Xenon Arc) [IS:7071]		2000
117)	Tensile Strength of Rope after Thermal Treatment (Heating)	6 m	1380
	X. METAL GABION [ASTM D: 975]		
118)	Size of the Gabion		300
119)	Thickness of Wire		300
120)	Tensile Strength of Wire		1350
121)	XI. GEO-COMPOSITES		

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122)	Bond strength (Ply adhesion) [ASTM D:7005]	1 m ²	1500
123)	Hydraulic transmissivity using constant head [ASTM D:4716]	1 m ²	3000
124)	Breaking force [ASM D:7179]	1 m ²	2000