GeofanTex GFP Geotextile

Technical Data Sheet

GeofanTex GFP Jan. 2018

GeofanTex GFP is 100% Polypropylene Staple Fiber Needle Punched non-woven Geotextile. The high quality PP raw material offers the most stable polymer against chemical / biological attack in groundwater with extreme pH conditions.

Manufactured from short fibres that are crimped, this range of geotextile offers excellent energy absorption characteristics as well as hydraulic performance. GeofanTex GFP is suitable in many applications, including the following:

Filtration Coastal hydraulic works

Protection of geomembranes in landfill lining systems



GeofanTex GFP is manufactured in widths of 6mts, thus reducing wastage by fewer overlaps and allows rapid, easy installation

Mechanical Properties

(T: Typical value M: Minimum Average Roll Value - MARV)

Properties	Mechanical Properties	5					(T:	Typical val	lue M: Min	imum Aver	age Roll Val	lue - MARV)		
Cast M D 4595 M	•		Unit											
Factor Part	Tensile Strength	Т		6.0	10	13	17	21	25	29	32	34	38	44
Cash Mark So So So So So So So S	[ASTM D 4595]		KN/m	4.8	7.8	11	15	17	19	23	25	26	28	31
ASTM D 4959 M	Tensile Elongation	Т	%	80	70	70	70	60	60	60	60	60	60	60
ASTM D 4632 M	[ASTM D 4595]	М		50	50	50	50	50	50	50	50	50	50	50
ASTM D 4632 M	Grab Strength	т	ZN	0.37	0.52	0.65	0.87	0.99	1.32	1.58	1.75	1.94	2.07	2.3
	[ASTM D 4632]	M	KIN	0.29	0.39	0.52	0.70	0.75	1.09	1.33	1.35	1.54	1.64	2.1
CASTM D 4632 M	Grab Elongation	т		80	70	70	60	60	60	60	60	60	60	60
CBR Burst Strength T KN No.		M	%	50	50	50	50	50	50	50	50	50	50	50
Carm D 4533 M	Trapezoidal Tear	т		0.16	0.24	0.29	0.39	0.44	0.51	0.64	0.68	0.74	0.80	0.90
CASTM D 6241	[ASTM D 4533]	М	KN	0.12	0.18	0.20	0.30	0.38	0.43	0.51	0.52	0.63	0.63	0.75
ASTM D 6241	CBR Burst Strength	т	KN(>=)	1.11	1.67	2.23	2.77	3.4	3.8	5.2	5.3	5.9	6.05	6.19
ASTM D 4833 M KN(=) 0.16 0.22 0.24 0.38 0.50 0.58 0.83 0.77 0.81 0.86 0.96 Hydraulic Properties Flow Rate, 100mm head [ASTM D 4491] L/s/m² 161 142 106 85.5 75 61 53.2 50 48 44 40 Flow Rate, 50mm head L/min/ m² 5600 4735 3251 2922 2659 2397 2113 2045 2013 1976 1889 Apparent Opening Size O ₈₅ microns	3			0.85	1.25	1.82	2.41	3.0	3.2	3.9	4.0	5.03	4.7	5.78
ASTM D 4833		т		0.21	0.31	0.44	0.50	0.57	0.72	0.86	0.97	1.02	1.04	1.05
Flow Rate, 100mm head [ASTM D 4491] Flow Rate, 50mm head [ASTM D 4491] Flow Rate, 50mm head [ASTM D 4491] Apparent Opening Size O ₈₅ [ASTM D 4751] Apparent Opening Size O ₈₀ [ASTM D 4751] Apparent Opening Size O ₈₀ [EN ISO 12956] Permittivity [ASTM D 4491] Sec¹ 2.5 2.3 2.0 1.3 1.1 0.9 0.8 0.7 0.7 0.7 0.6 0.5 Endurance UV Resistance Strength Retained @ 500hrs Physical Identification Properties Thickness (2KP) M [ASTMD5199] T mm O.7 0.9 1.0 1.1 1.2 1.3 1.5 2.0 2.2 2.5 2.8 3.0 4.0 Mass per Unit [ASTM D 5261] T g/m² 100 150 200 250 300 350 400 450 500 550 600 Roll Width m(≤) 2/4/6			KN(>=)	0.16	0.22	0.24	0.38	0.50	0.58	0.83	0.77	0.81	0.86	0.96
[ASTM D 4491] Flow Rate, 50mm head [ASTM D 4491] Apparent Opening Size O ₉₅ [ASTM D 4751] Apparent Opening Size O ₉₆ [ASTM D 4751] Apparent Opening Size O ₉₆ [EN ISO 12956] Permittivity[ASTM D 4491] Sec¹ 2.5 2.3 2.0 1.3 1.1 0.9 0.8 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	Hydraulic Properties													
[ASTM D 4491] Flow Rate, 50mm head [ASTM D 4491] Apparent Opening Size O ₉₅ microns	Flow Rate, 100mm head		I /s/m²	161	142	106	85.5	75	61	53.2	50	48	44	40
[ASTM D 4491]	[ASTM D 4491]		L/3/111											
Apparent Opening Size O ₉₅ microns 120 110 100 90 90 75 75 75 75 75 75 75 7	Flow Rate, 50mm head			5600	4735	3251	2922	2659	2397	2113	2045	2013	1976	1889
[ASTM D 4751] ≤ 120 110 100 90 90 75 75 75 75 75 75 75 75 75 75 75 75 75	[ASTM D 4491]		m²	3000	4700	0201	2022	2000	2007	2110	2040			. 300
Apparent Opening Size O ₉₀ µm≤ 120 120 120 120 120 110 110 110 110 110		O ₉₅		120	110	100	90	90	75	75	75	75	75	75
Permittivity[ASTM D 4491] Sec¹ 2.5 2.3 2.0 1.3 1.1 0.9 0.8 0.7 0.7 0.6 0.5	Apparent Opening Size (O ₉₀		120	120	120	120	120	110	110	110	110	110	110
Endurance UV Resistance Strength Retained @ 500hrs Physical Identification Properties Thickness (2KP) M [ASTMD5199] T		41			0.0		4.0	4.4	0.0	0.0	0.7	0.7	0.0	
UV Resistance Strength Retained @ 500hrs Physical Identification Properties % 70		1]	Sec ⁻ '	2.5	2.3	2.0	1.3	1.1	0.9	0.8	0.7	0.7	0.6	0.5
Strength Retained @ 500hrs Physical Identification Properties Thickness (2KP) M mm 0.9 1.1 1.2 1.3 1.5 2.0 2.2 2.5 2.8 3.0 4.3 [ASTMD5199] T mm 0.7 0.9 1.0 1.1 1.3 1.8 1.9 2.2 2.7 2.7 4.0 Mass per Unit [ASTM D5261] T g/m² 100 150 200 250 300 350 400 450 500 550 600 Roll Width m(≤) 2/4/6 <			0/	70	70	70	70	70	70	70	70	70	70	70
Thickness (2KP) M mm				70	70	70	70	70	70	70	70	70	70	70
[ASTMD5199] T mm 0.7 0.9 1.0 1.1 1.3 1.8 1.9 2.2 2.7 2.7 4.0 Mass per Unit [ASTM D5261] T g/m² 100 150 200 250 300 350 400 450 500 550 600 Roll Width m(≤) 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 2/4/6 7/5 Roll Length m(≥) 440 290 220 175 145 125 110 100 90 80 75				0.9	1.1	1.2	1.3	1.5	2.0	2.2	2.5	2.8	3.0	4.3
[ASTM D5261] Roll Width m(≤) 2/4/6 2/4/	•••			0.7	0.9	1.0	1.1	1.3	1.8	1.9	2.2	2.7	2.7	4.0
Roll Width m(≤) 2/4/6 2			g/m²	100	150	200	250	300	350	400	450	500	550	600
	•		m(≤)	2/4/6	2/4/6	2/4/6	2/4/6	2/4/6	2/4/6	2/4/6	2/4/6	2/4/6	2/4/6	2/4/6
Approx Load Q'ty / 40' HQ Sq. m 105600 69600 52800 42000 34800 30000 26400 24000 21600 19200 18000	Roll Length		m(≥)	440	290	220	175	145	125	110	100	90	80	75
	Approx Load Q'ty / 40' H	Q	Sq. m	105600	69600	52800	42000	34800	30000	26400	24000	21600	19200	18000

Above values are on an average basis, the data was obtained from in-house test laboratory, National test institutes and international test institutes. Geofantex Geosynthetics keeps the right of data changes and the final explanation right. Liability Exclusion: This publication should not be construed as engineering advice. While information contained here is accurate to the best of our knowledge, Geofantex Geosynthetics does not warrant its accuracy or completeness. The only warranty made by Geofantex Geosynthetics for its products is set forth in our Product Test Report accompanies our shipment of the products, or such other written warranty as may be agreed by Geofantex Geosynthetics and customer. Geofantex Geosynthetics specifically disclaims all other warranties, express or implied, including without agreed by Geofantex Geosynthetics and customer. Geofantex Geosynthetics and customer. Geofantex Geosynthetics and customer in provision of samples, a course of dealing or usage of trade.



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GeofanTex GFP is 100% Polypropylene Staple Fiber Needle Punched non-woven Geotextile. The high -quality PP raw material offers the most stable polymer against chemical / biological attack in groundwater with extreme pH conditions.

Manufactured from short fibres that are crimped, this range of geotextile offers excellent energy absorption characteristics as well as hydraulic performance. GeofanTex GFP is suitable in many applications, including the following:

Filtration Coastal hydraulic works

Drainage Protection of geomembranes in landfill lining systems

GeofanTex GFP is manufactured in widths of 6mts, thus reducing wastage by fewer overlaps and allows rapid, easy installation

Mechanical Properties

(T: Typical value M: Minimum Average Roll Value - MARV)

Mechanical Properties				(T: Typical value M: Minimu	m Average Roll Value - MAR	V)	
Properties (Standard)		Unit	GFP 800	GFP 1000	GFP 1200	GFP 2000	
Tensile Strength	т		56	67	82	135	
[ASTM D 4595]	М	KN/m	42	51	65	102	
Tensile Elongation	Т		60	60	60	60	
[ASTM D 4595]	М	%	50	50	50	50	
Grab Strength	т	KN	2.9	3.4	4.55	7.15	
[ASTM D 4632]	M	KIN	2.1	2.4	3.23	5.43	
Grab Elongation [ASTM D 4632]	т	0/	60	60	60	60	
	M	%	50	50	50	50	
Trapezoidal Tear	Т	1701	1.05	1.26	1.67	2.77	
[ASTM D 4533]	М	KN	0.90	1.08	1.39	2.19	
CBR Burst Strength [ASTM D 6241]	т	KN(>=)	8.19	10.43	12.58	20.58	
	M	NN(>=)	6.78	8.67	10.57	16.89	
Puncture resistance	т	KN(>=)	1.05	1.33	1.46	2.26	
[ASTM D 4833]	М	KIN(>-)	0.96	1.24	1.38	2.83	
Hydraulic Properties							
Flow Rate, 100mm head		L/s/m ²	38	36	36	N/A	
[ASTM D 4491]							
Flow Rate, 50mm head		L/s*sqm	1812	1759	1533	N/A	
[ASTM D 4491]		·					
Apparent Opening Size O ₉₅ [ASTM D 4751]		microns≤	70	70	70	N/A	
Apparent Opening Size O ₉₀ [EN ISO 12956]		µm≤	105	105	104	N/A	
Permittivity[ASTM D 4491]		Sec ⁻¹	0.4	0.4	0.4	N/A	
Physical Identification Pro	operties	8					
Thickness (2KP)	T M	ma 17-	5.01	5.65	6.15	N/A	
[ASTMD5199]		mm	4.43	4.93	5.87	N/A	
Mass per Unit [ASTM D5261]	Т	g/m²	800	1000	1200	2000	
Roll Width		m(≤)	4	4	4	4	
Roll Length		m(≥)	57	45	40	24	
Approx Load Q'ty / 40' HQ		Sq. m	13680	10800	9600	5760	

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