

# Fibertex Geotextiles

Sheet No: FSA484.03 ASTM  
Date: 07/2012

## Product Data Sheet

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# Polypropylene Needleponched Geotextiles

Fibertex Geotextiles	Test method	unit	F-22 SA	F-25 SA	F-30 SA	F-32 SA	F-34 SA	F-46 SA	F-50 SA	F-55 SA
<b>Physical Properties</b>										
Mass	ASTM D-5261	g/m <sup>2</sup>	120	130	150	175	200	275	310	340
Thickness at 2 kPa	ASTM D-5199	mm	0.7	0.7	0.7	0.9	1.2	1.2	1.6	1.8
<b>Mechanical Properties</b>										
Static puncture strength (CBR test)	ASTM D-6241	N	1500	1 700	1900	2100	2600	3600	3 900	4 500
Elongation at break	ASTM D-6241	%	> 45	> 50	50	> 45	> 45	> 45	> 50	> 50
Strip tensile strength (longitudinal direction)	ASTM D-4595	kN/m	8	10	11	12	15	21	23	26
Tensile strength (transverse direction)		kN/m	8	10	11	12	15	21	23	26
Strip elongation at break		%	40 – 65	45 – 65	> 50	40 – 65	40 – 65	40 – 65	40 – 65	40 – 65
Trapezoid tear strength	ASTM D-4533	N	145	160	210	270	320	405	430	460
Grab tensile strength	ASTM D-4632	N	540	600	650	780	880	1210	1360	1460
Grab elongation at break		%	> 50	> 50	> 50	> 50	> 50	> 50	> 50	> 50
<b>Hydraulic Properties</b>										
Water flow rate (50 mm water head)	ASTM D-4491	ℓ/s/m <sup>2</sup>	70	70	50	40	30	30	30	30
Permeability (50 mm water head)		10 <sup>-4</sup> m/s	10	11	8	7	7	8	8	10
Permittivity		sec <sup>-1</sup>	1.4	1.4	1.0	0.8	0.6	0.6	0.5	0.4
Apparent opening size (O <sub>95%</sub> )	ASTM D-4751	micron	100	100	100	<90	<90	<90	<90	<90
<b>Standard Dimensions</b>										
Width (maximum)		m	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Length		m	150	150	150	150	150	100	100	100
Roll diameter		cm	28	33	35	38	40	40	42	44
Roll mass at maximum standard dimension		kg	94	101	117	137	156	143	161	177

An **M** in the Fibertex product code indicates it is needleponched only, and has not undergone thermal treatment.

The above technical values are mean values and are indicative.

Fibertex reserves the right to make technical modifications to its products without notice.

Fibertex geotextiles are used in building and construction works for separation, filtration, drainage, protection, stabilisation and reinforcement.

Fibertex geotextiles are manufactured from virgin polypropylene fibres with an added UV stabiliser.

The basic strength of Fibertex Geotextiles is obtained by needleponching the polypropylene fibres, which provides strong elastic bonding.

Fibertex is highly durable and resistant to all natural occurring soil alkalis and acids.

Fibertex geotextiles are manufactured to ISO 9001 2008 quality management procedures.

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# Polypropylene Needleponched Geotextile

Fibertex Geotextiles	Test method	unit	F-300M SA	F-400M SA	F-500M SA	F-550M SA	F-650M SA	F-750M SA	F-1000M SA	F-1200M SA
<b>Physical Properties</b>										
Mass	ASTM D-5261	g/m <sup>2</sup>	300	400	500	550	650	750	1 000	1 200
Thickness at 2 kPa	ASTM D-5199	mm	3.0	3.4	3.6	4.1	5.0	5.5	6.5	7.0
<b>Mechanical Properties</b>										
Static puncture strength (CBR test)	ASTM D-6241	N	3 900	4 500	6 500	7100	7 500	8800	12500	14 000
Elongation at break		%	> 60	> 60	> 60	> 60	> 60	> 60	> 60	> 60
Strip tensile strength (longitudinal direction)	ASTM D-4595	kN/m	20	25	30	40	45	51	70	75
Tensile strength (transverse direction)		kN/m	20	28	38	40	50	54	70	90
Strip elongation at break		%	> 50	> 50	> 50	> 50	> 50	> 50	> 50	> 50
Trapezoid tear strength	ASTM D-4533	N	310	460	520	720	850	1000	1230	1380
Grab tensile strength	ASTM D-4632	N	1040	1480	1920	2200	2360	3040	3920	4460
Grab elongation at break		%	> 60	> 60	> 60	>60	> 60	> 60	> 60	> 60
<b>Hydraulic Properties</b>										
Water flow rate (50 mm water head)	ASTM D-4491	ℓ/s/m <sup>2</sup>	50	50	45	40	30	25	18	16
Permeability (50 mm water head)		10 <sup>-4</sup> m/s	35	40	27	30	30	30	26	24
Permittivity		sec <sup>-1</sup>	1.0	1.0	0.8	0.7	0.6	0.6	0.4	0.3
Apparent opening size (O <sub>95%</sub> )	ASTM D-4751	micron	100	100	<90	<90	<90	<90	<90	<90
<b>Standard Dimensions</b>										
Width (maximum)		m	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Length		m	100	100	50	50	50	50	50	50
Roll diameter		cm	60	60	48	50	52	58	61	72
Roll mass at maximum standard dimension		kg	156	208	130	143	169	195	260	312

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