

קומשוב מישורים

מפרט טכני ליריעות האיטום:

- יריעות גיאוטקסטיל

- יריעות פוליאתילן

- יריעות פוליפרופילן

Geodren® PEIT



THE NONWOVEN GEOTEXTILE IN POLYESTER FOR FILTRATION, SEPARATION AND PROTECTION

Geodren PEIT is a nonwoven geotextile, needlepunched and calandered, made of synthetic polyester. Its quality is regularly tested and it is manufactured according to ISO 9001/2008 standard; it also fulfils the safety requirements of CE marking regulations.

APPLICATION EXAMPLE



AVAILABLE SIZES

Type	150	200	250	300	350	400	500	600	700	800	1000	1200	1500
Rolls width (m)	5,90 - 6,00 *												
Rolls length (m)	150	100	90	80	70	65	50	40	35	30	30	25	25

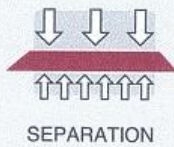
* width depends on the mean of transport: container or truck.

OTHER SIZES

The standard production width is 2/3/6 m. Other widths are available by sending a specific request to our sales offices. Every size not listed in the table above is available within 10 days (plus transport delivery time). For every further details, please contact our sales team or our distributors/agents network.



FUNCTIONS



S - Geodren PEIT acts like an anti-contamination system between the different layers of soil
 F - Geodren PEIT acts like a filter, avoiding erosion of the upper layer and letting the rainwater flow freely through
 P - Geodren PEIT protects other materials from punctures or mechanical damages.

TECHNICAL SPECIFICATION

POLYMER: Polyester SPECIFIC WEIGHT: 1.38 kg/dm³ PROCESS: Needle punching and calendering COLOUR: White

MECHANICAL PROPERTIES

Type		150	200	250	300	350	400	500	600	700	800	1000	1200	1500	
Tensile strength [EN ISO 10319]	MD	kN/m	1,2	1,8	2	2,5	2,8	3,2	4,2	5,5	6	6,5	7,5	13	20
	CMD	kN/m	1,2	1,8	2	2,7	3,2	4	5,2	7,5	8	9	10,5	16	25
Elongation at maximum load [EN ISO 10319]	MD	%	50	50	50	50	50	50	60	70	70	80	80	80	80
	CMD	%	60	60	60	60	60	60	70	80	80	90	90	90	90
Energy absorption index [EN ISO 10318]		kJ/m ²	0,3	0,5	0,6	0,7	0,8	1	1,5	2,4	2,6	3,3	3,8	6,2	9,6
Static puncture res. CBR [EN ISO 12236]		kN	0,2	0,3	0,4	0,5	0,6	0,7	0,8	1,2	1,4	1,8	2,2	2,8	4
Dynamic puncture res. [EN ISO 13433]		mm	>50	>50	45	40	30	20	16	6	2	2	0	0	0

HYDRAULIC PROPERTIES

Velocity index [EN ISO 11058]	mm/s	110	100	80	60	50	40	30	25	25	20	20	20	20
In plane flow capacity [EN ISO 12958]	10 ⁻³ l/ms	1,6	2,1	2,3	2,7	3	3,2	5	7	7	8	9	9	9
Opening size (O ₂) [EN ISO 12956]	µm	65	60	55	55	55	45	45	35	35	35	30	30	30

PHYSICAL PROPERTIES

Mass per unit area [EN ISO 9864]	g/m ²	150	200	250	300	350	400	500	600	700	800	1000	1200	1500
Thickness (2kPa) [EN ISO 9863-1]	mm	0,9	1,1	1,3	1,6	1,75	1,9	2,2	2,8	3	3,5	4	4,5	6

DURABILITY PROPERTIES

To be covered within 1 day from the installation. Forecast minimum durability of 5 years in natural soil with 4<pH<9 and soil temperature <25°C.

TECHNICAL DATA SHEET

PROPERTY	TEST METHOD	FREQUENCY ⁽¹⁾	UNIT Metric	SPECIFICATIONS			
				440-2000	460-2000	480-2000	500-2000
SPECIFICATIONS							
Thickness (min. avg.)	ASTM D-5199	Every roll	mm	1.00	1.50	2.00	2.50
Thickness (min.)	ASTM D-5199	Every roll	mm	0.90	1.35	1.80	2.25
Resin Density	ASTM D-1505	1/Batch	g/cc	> 0.932	> 0.932	> 0.932	> 0.932
Melt Index - 190/2.16 (max.)	ASTM D-1238	1/Batch	g/10 min	1.0	1.0	1.0	1.0
Sheet Density (8)	ASTM D-1505	Every 2 rolls	g/cc	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940
Carbon Black Content (9)	ASTM D-4218	Every 2 rolls	%	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	ASTM D-5596	Every 6 rolls	Category	Cat. 1 / Cat. 2	Cat. 1 / Cat. 2	Cat. 1 / Cat. 2	Cat. 1 / Cat. 2
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	100	100	100	100
Tensile Properties (min. avg.) (2)	ASTM D-6693	Every 2 rolls					
Strength at Yield			kN/m	15	22	31	37
Elongation at Yield			%	13	13	13	12
Strength at Break			kN/m	28	42	57	67
Elongation at Break			%	700	700	700	700
Tear Resistance (min. avg.)	ASTM D-1004	Every 6 rolls	N	125	187	250	311
Puncture Resistance (min. avg.)	ASTM D-4833	Every 6 rolls	N	355	540	695	800
Dimensional Stability	ASTM D-1204	Every 6 rolls	%	± 2	± 2	± 2	± 2
Stress Crack Resistance (SP-NCTL)	ASTM D-5397	1/Batch	hr	400	400	400	400
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation					
HP OIT (min. avg.)	ASTM D-5885		%	80	80	80	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation					
HP-OIT (min. avg.)	ASTM D-5885		%	50	50	50	50
SUPPLY SPECIFICATIONS (Roll dimensions may vary ±1%)							
Roll Dimension - Width	-		m	6.80	6.80	6.8	6.80
Roll Dimension - Length	-		m	237.7	158.5	121.9	97.5
Area (Surface/Roll)	-		m ²	1616.4	1077.8	828.9	663.0

NOTES

1. Testing frequency based on standard roll dimensions and one batch is approximately 180,000 lbs (or one railcar).
2. Machine Direction (MD) and Cross Machine Direction (XMD or TD) average values should be on the basis of 5 specimens each direction.
8. Correlation table is available for ASTM D792 vs ASTM D1505. Both methods give the same results.
9. Correlation table is available for ASTM D1603 vs ASTM D4218. Both methods give the same results.

* All values are nominal test results, except when specified as minimum or maximum.

* The information contained herein is provided for reference purposes only and is not intended as a warranty of guarantee. Final determination of suitability for use contemplated is the sole responsibility of the user. assumes no liability in connection with the use of this information.

REINFORCED POLYPROPYLENE GEOMEMBRANE™

TYPICAL PROPERTIES AND CHARACTERISTICS			
Physical Property	Test Method	Property Of Unaged Sheet	Property After Aging 30 days @ 185 °F
Tolerance on nominal thickness, %	ASTM D 5199	± 10	
Thickness over scrim, in. (mm) 36-mil 45-mil 60-mil	ASTM D 4637 Optical Method	0.010 (0.254) min. 0.013 (0.330) min. 0.018 (0.457) min.	
Mass per unit area, lb/ft ² (g/ ft ²) (kg/m ²) 36-mil 45-mil 60-mil	ASTM D 5261	0.17 (77) (0.83) typical 0.21 (95) (1.03) typical 0.29 (132) (1.42) typical	
Breaking strength, lbf (kN) (grab tensile at strain rate of 12 in./min.) 36-mil 45 & 60-mil	ASTM D 751 Grab Method A	200 (0.9) min. 260 typ. 250 (1.1) min. 300 typ.	200 (0.9) min. 260 typ. 250 (1.1) min. 300 typ.
Elongation at break of fabric, %	ASTM D 751	25 typical	25 typical
Tearing strength, lbf (N) (2 in. / min. strain rate) 36-mil 45 & 60-mil	ASTM D 5884 (max. load)	80 (356) min. 130 (578) typ. 100(445) min. 160 (712) typ.	
Low temperature flexibility, °F (°C)	ASTM D 2136 1/8 in. mandrel 4 hour @ temp.	- 40 (- 40) max. - 50 (- 46) typical	
Linear Dimensional Change (shrinkage), %	ASTM D 1204		+/- 1.0 max. - 0.5 typical
Ozone resistance, 100 pphm, 168 hours	ASTM D 1149	No cracks	No cracks
Resistance to water (distilled) absorption After 30 days immersion 122 °F (50 °C) Change in mass, %	ASTM D 471 (coating compound)	1.0 max. 0.5 typical	
Hydrostatic resistance, lbf/in. ² or psi (MPa) (Mullen burst) 36-mil 45-mil 60-mil	ASTM D 751 Procedure A	350 (2.4) min. 400 (2.8) typical 450 (3.1) typical 500 (3.4) typical	350 (2.4) min. 400 (2.8) typical 450 (3.1) typical 500 (3.4) typical
Field seam strength, lbf/in. (kN/m) Seam tested in peel after weld	ASTM D 4437 1 in. wide	30 (5.3) min. 60 (10.5) typical	
Water vapor permeance, Perms	ASTM E 96	0.10 max. 0.05 typical	
Puncture resistance, lbf (N) 36-mil & 45-mil 60-mil	ASTM D 4833 (index puncture)	85 (378) min. 110 (489) typical 120 (534) typical	
Resistance to xenon-arc weathering ¹ Xenon-Arc, 15,120 kJ/m ² total radiant exposure, visual condition at 10X	ASTM G 155 0.70 W/m ² 80 °C B.P.T.	No cracks No loss of breaking or tearing strength	

¹ Approximately equivalent to 12,000 hours exposure at 0.35 W/m² irradiance B.P.T. is black panel temperature 3/06