

PRODUCT SPECIFICATIONS

GEOLON®



Woven Polypropylene Geoproducts

		GEOLON® PP 15 (2.1)	GEOLON® PP 25	GEOLON® PP 40 (4.1)	GEOLON® PP 60 (2.1)	GEOLON® PP 80 (3.1)	STANDARD
CONSTRUCTION							
Construction type		woven	woven	woven	woven	woven	
Yarn type length direction		tape	tape	tape	tape	split fibre	
Yarn type cross direction		tape	tape	tape	split fibre	split fibre	
Colour		black	black	black	black	black	
MECHANICAL PROPERTIES							
Length direction:							
Nominal tensile strength	kN/m	15	25	40	60	80	EN-ISO 10319
Elongation at nominal strength	%	20	15	16	8	7,5	EN-ISO 10319
Tensile strength at 10% elongation	kN/m	-	-	-	-	-	EN-ISO 10319
Tensile strength at 5% elongation	kN/m	-	-	-	40	50	EN-ISO 10319
Tensile strength at 2% elongation	kN/m	-	-	-	15	20	EN-ISO 10319
Cross direction:							
Nominal tensile strength	kN/m	15	25	40	60	80	EN-ISO 10319
Elongation at nominal strength	%	11	13	12,5	8	10	EN-ISO 10319
Static puncture (CBR):							
Push-through force	kN	2,2	3	5,5	6	8	EN-ISO 12236
Push-through displacement	mm	40	40	-	30	30	EN-ISO 12236
Dynamic perforation (Cone drop)	mm	16	14	10	9	9	EN 918
HYDRAULIC AND FILTER PROPERTIES							
Water flow at $\Delta h = 100$ mm	litre/m ² s	16	10	-	35	20	NEN 5167
Water head at $v = 10$ mm/s	mm	100	75	-	15	29	NEN 5167
Permittivity Ψ_s	1/s	0,1	0,13	-	0,67	0,4	NEN 5167
Water permeability	m/s	0,010	0,005	0,014	0,025	0,025	EN-ISO 11058
Characteristic pore size O_{90} (dry)	micron	175	180	-	400	350	NEN 5168
Characteristic opening size O_{90}	micron	170	160	240	300	275	EN-ISO 12956
DURABILITY							
Ultra Violet resistance:							
Fluorescent test (50 MJ/m ²)	U.T.S.	>80%	>80%	>80%	>90%	>90%	ENV 12224
Classification	class	B	B	B	C	C	ISO 4892-2
Thermo-oxidation resistance	class	A	A	A	A	A	NEN 5132
PHYSICAL PROPERTIES							
Mass per unit area	g/m ²	100	110	215	230	314	EN 965
Thickness (2 kN/m ² pressure)	mm	0,45	0,5	-	1,1	1,1	EN 964-1
Roll width	m	5,2	5,2	5,2	5,2	5,2	
Roll length	m	200	200	200	200	200	
Roll diameter	m	0,3	0,32	0,48	0,5	0,52	
Roll weight	kg	110	125	235	250	385	
Ten Cate Nicolon code		615	665	641	369	345	

The technical data are obtained from in- and external test procedures.
The above listed geotextiles can be supplied in prefabricated panels.

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PRODUCT SPECIFICATIONS

GEOLON®



Woven Polypropylene Geoproducts

		GEOLON® PP 100S (2.1)	GEOLON® PP 120	GEOLON® PP 120S	GEOLON® PP 200 (2.1)	GEOLON® PP 200S	STANDARD
CONSTRUCTION							
Construction type		woven	woven	woven	woven	woven	
Yarn type length direction		split fibre	split fibre	split fibre	split fibre	split fibre	
Yarn type cross direction		split fibre	split fibre	split fibre	split fibre	split fibre	
Colour		black	black	black	black	black	
MECHANICAL PROPERTIES							
Length direction:							
Nominal tensile strength	kN/m	100	120	120	200	200	EN-ISO 10319
Elongation at nominal strength	%	12	12	14	11	14	EN-ISO 10319
Tensile strength at 10% elongation	kN/m	85	100	100	160	150	EN-ISO 10319
Tensile strength at 5% elongation	kN/m	45	60	55	80	50	EN-ISO 10319
Tensile strength at 2% elongation	kN/m	15	20	20	20	10	EN-ISO 10319
Cross direction:							
Nominal tensile strength	kN/m	100	40	120	40	200	EN-ISO 10319
Elongation at nominal strength	%	8	7	7	7	13	EN-ISO 10319
Static puncture (CBR):							
Push-through force	kN	11	8	14	9	20	EN-ISO 12236
Push-through displacement	mm	35	30	40	30	40	EN-ISO 12236
Dynamic perforation (Cone drop)	mm	8	8	8	9	6	EN 918
HYDRAULIC AND FILTER PROPERTIES							
Water flow at $\Delta h = 100$ mm	litre/m ² s	15	30	15	10	25	NEN 5167
Water head at $v = 10$ mm/s	mm	45	17	29	100	20	NEN 5167
Permittivity Ψ_s	1/s	0,22	0,6	0,35	0,1	0,5	NEN 5167
Water permeability	m/s	0,010	0,030	0,008	0,010	0,010	EN-ISO 11058
Characteristic pore size O_{90} (dry)	micron	250	500	250	350	500	NEN 5168
Characteristic opening size O_{90}	micron	200	420	200	250	230	EN-ISO 12956
DURABILITY							
Ultra Violet resistance:							
Fluorescent test (50 MJ/m ²)	U.T.S.	>80%	>90%	>80%	>90%	>90%	ENV 12224
Classification	class	C	C	C	C	C	ISO 4892-2
Thermo-oxidation resistance	class	A	A	A	A	B	NEN 5132
PHYSICAL PROPERTIES							
Mass per unit area	g/m ²	360	360	500	530	900	EN 965
Thickness (2 kN/m ² pressure)	mm	1,2	1,3	1,7	2	3,3	EN 964-1
Roll width	m	5,2	5,2	5,2	5,2	5,2	
Roll length	m	200	200	200	200	200	
Roll diameter	m	0,5	0,56	0,62	0,68	0,78	
Roll weight	kg	385	385	530	560	990	
Ten Cate Nicolon code		105	114	112	695	676	

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PRODUCT SPECIFICATIONS

GEOLON®



Woven Polypropylene Geoproducts

		GEOLON® PP 300	GEOLON® PP 400	GEOLON® PP 500	STANDARD
CONSTRUCTION					
Construction type		woven	woven	woven	
Yarn type length direction		split fibre	split fibre	split fibre	
Yarn type cross direction		split fibre	split fibre	split fibre	
Colour		black	black	black	
MECHANICAL PROPERTIES					
Length direction:					
Nominal tensile strength	kN/m	300	400	500	EN-ISO 10319
Elongation at nominal strength	%	12	15	10	EN-ISO 10319
Tensile strength at 10% elongation	kN/m	230	280	-	EN-ISO 10319
Tensile strength at 5% elongation	kN/m	110	125	400	EN-ISO 10319
Tensile strength at 2% elongation	kN/m	30	40	90	EN-ISO 10319
Cross direction:					
Nominal tensile strength	kN/m	40	50	50	EN-ISO 10319
Elongation at nominal strength	%	7	12	9	EN-ISO 10319
Static puncture (CBR):					
Push-through force	kN	10	12	10	EN-ISO 12236
Push-through displacement	mm	30	35	40	EN-ISO 12236
Dynamic perforation (Cone drop)	mm	7	7	6	EN 918
HYDRAULIC AND FILTER PROPERTIES					
Water flow at $\Delta h = 100$ mm	litre/m ² s	15	10	25	NEN 5167
Water head at $v = 10$ mm/s	mm	40	90	33	NEN 5167
Permittivity Ψ_s	1/s	0,25	0,11	0,3	NEN 5167
Water permeability	m/s	0,005	0,005	0,008	EN-ISO 11058
Characteristic pore size O_{90} (dry)	micron	300	175	300	NEN 5168
Characteristic opening size O_{90}	micron	250	160	250	EN-ISO 12956
DURABILITY					
Ultra Violet resistance:					
Fluorescent test (50 MJ/m ²)	U.T.S.	>90%	>90%	>90%	ENV 12224
Classification	class	C	C	C	ISO 4892-2
Thermo-oxidation resistance	class	A	A	A	NEN 5132
PHYSICAL PROPERTIES					
Mass per unit area	g/m ²	700	890	1200	EN 965
Thickness (2 kN/m ² pressure)	mm	2,6	2,6	3,2	EN 964-1
Roll width	m	5,2	5,2	5,05	
Roll length	m	200	200	100	
Roll diameter	m	0,78	0,77	0,64	
Roll weight	kg	740	914	620	
Ten Cate Nicolon code		750	403	645	

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