Wallbarn - Technical Datasheet
Geotextile PPST

Nonwoven geotextile made with high tenacity polypropylene for filtration, separation, protection and drainage.

Mechanical properties		70	90	100	110	120	130	150	180	200	230	250	280	300
Tensile strength [EN ISO 10319]	MD kN/m	3.2	6	7	8	9	10	12	14	16	18	20	23	25
	CMD kN/m	3.5	6	7	8	9	10	12	14	16	18	20	23	25
Elongation at max.load [EN ISO 10319]	MD %	55	55	55	55	55	55	55	60	60	65	65	65	65
	CMD %	60	60	60	60	60	60	60	65	65	70	70	70	70
Energy absorption index [EN ISO 10318]	kJ/m²	1.0	1.7	2.0	2.3	2.6	2.9	3.5	4.4	5.0	6.1	6.8	7.8	8.4
Static puncture resistance [EN ISO 12236]	kN	0.7	0.9	1.2	1.3	1.5	1.7	1.9	2.2	2.4	2.7	3.0	3.5	4.0
Dynamic puncture resistance [EN ISO 13433]	mm	>50	44	38	34	32	30	26	22	20	16	14	12	10
Pyramidal puncture resistance [EN 14574]	N									200	220	280	320	330

Hydraulic Properties		70	90	100	110	120	130	150	180	200	230	250	280	300
Permeability normal to the plane [EN ISO 11058]	mm/s	130	130	125	120	115	110	100	95	90	80	75	70	65
In-plane flow capacity [EN ISO 12958]	10^{-3}l/ms	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.1	2.1	2.3	2.3	2.5
Characteristic opening size [EN ISO 12956]	µm	120	120	120	110	110	100	90	90	80	70	60	50	50

Physical Properties		70	90	100	110	120	130	150	180	200	230	250	280	300
Mass per unit area [EN ISO 9864]	g/m²	70	90	100	110	120	130	150	180	200	230	250	280	300
Thickness [EN ISO 9863-1]	mm	0.40	0.60	0.65	0.70	0.80	0.90	1.00	1.20	1.30	1.40	1.50	1.55	1.60

µm = Micrometre
kg/dm³ = Kilogram per cubic decimetre
g/m² = Gram per square metre
mm/s = Millimetre per second
kN = Kilonewton
kN/m = Kilonewton per metre
kJ/m²= Kilojoule per square metre
mm = Millimetre
$^{-3}$l/ms = Cubic metre per millisecond
MD = Machine Direction/Longitudinal
CMD = Cross Machine Direction/Trasversal

Wallbarn Ltd
Unit 16 Capital Business Centre
22 Carlton Road, South Croydon. CR2 0BS
Phone : 0208 916 2222 Email : sales@wallbarn.com Website : www.wallbarn.com

Wallbarn - Technical Datasheet
Geotextile PPST

Nonwoven geotextile made with high tenacity polypropylene for filtration, separation, protection and drainage.

Mechanical properties			320	350	380	400	450	500	600	700	800	1000	1200	1500	2000
Tensile strength [EN ISO 10319]	MD	kN/m	25	27	28	30	32	35	40	45	50	60	70	85	75
	CMD	kN/m	27	30	32	34	36	40	50	65	80	90	105	140	155
Elongation at max.load [EN ISO 10319]	MD	%	70	70	70	70	80	80	80	80	80	80	80	80	80
	CMD	%	70	70	70	70	80	80	80	80	80	80	80	80	80
Energy absorption index [EN ISO 10318]		kJ/m²	9.1	10.0	10.5	11.2	13.6	15.0	18.0	22.0	26.0	30.0	35.0	45.0	46
Static puncture resistance [EN ISO 12236]		kN	4.2	4.5	5.0	5.5	6.0	6.5	8.0	9.0	10.0	13.0	14.0	18.0	20.0
Dynamic puncture resistance [EN ISO 13433]		mm	10	8	8	6	6	4	2	1	0	0	0	0	0
Pyramidal puncture resistance [EN 14574]		N	335	340	350	350	400	500	700	900	1000	1300	1600	2200	2200

Hydraulic Properties		320	350	380	400	450	500	600	700	800	1000	1200	1500	2000
Permeability normal to the plane [EN ISO 11058]	mm/s	60	50	40	35	30	30	25	20	20	15	15	15	5
In-plane flow capacity [EN ISO 12958]	10^{-3}l/ms	2.5	2.7	2.8	3.2	4.0	5.0	7.8	8.0	8.5	9.0	9.0	9.0	7
Characteristic opening size [EN ISO 12956]	µm	50	50	50	50	50	50	50	50	40	40	40	40	20

Physical Properties		320	350	380	400	450	500	600	700	800	1000	1200	1500	2000
Mass per unit area [EN ISO 9864]	g/m²	320	350	350	400	450	500	600	700	800	1000	1200	1500	2000
Thickness [EN ISO 9863-1]	mm	1.65	1.80	2.20	2.50	2.65	3.00	4.00	5.00	5.50	6.50	7.00	7.50	10.0

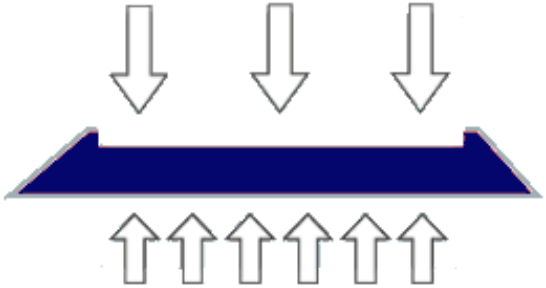
µm = Micrometre
kg/dm³ = Kilogram per cubic decimetre
g/m² = Gram per square metre
mm/s = Millimetre per second
kN = Kilonewton
kN/m = Kilonewton per metre
kJ/m²= Kilojoule per square metre
mm = Millimetre
$^{-3}$l/ms = Cubic metre per millisecond
MD = Machine Direction/Longitudinal
CMD = Cross Machine Direction/Trasversal

The values given are an average obtained in internal labs and official independent testing institutes. The right is reserved to make changes any time without notice.

Wallbarn Ltd
Unit 16 Capital Business Centre
22 Carlton Road, South Croydon. CR2 0BS
Phone : 0208 916 2222 Email : sales@wallbarn.com Website : www.wallbarn.com

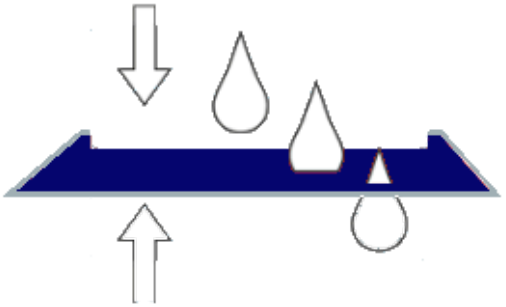
Wallbarn - Technical Datasheet

MAIN FUNCTIONS



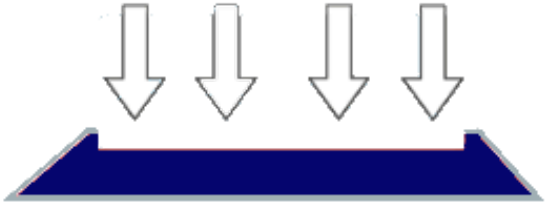
SEPARATION

Separation & retaining of soil and/or filling materials to stabilise groundworks



FILTRATION

Retaining soil or other particles while allowing the passage of moisture



PROTECTION

Preventing compression or puncture damage to delicate membranes beneath

Wallbarn PPST safely passes the weathering test according to EN 12224. It is highly recommended to cover the geotextile within 30 days from the installation; the material can be exposed to sunlight for a maximum of 4 months with a degradation of the mechanical properties depending on the season and on the latitude. The durability forecast is for minimum 25 years & expected 100 year life service in natural ground with a 4<pH<9 and soil temperature < 25 °C.

Wallbarn PPST is needle punched and double calandered. It is the most suitable Geotextile where quality of filtration, protection or separation is critical.

Wallbarn Ltd
Unit 16 Capital Business Centre
22 Carlton Road, South Croydon. CR2 0BS
Phone : 0208 916 2222 Email : sales@wallbarn.com Website : www.wallbarn.com

Wallbarn - Technical Datasheet

Roads, Railways & Heavy Traffic Areas

Landfill for Solid & Liquid Waste

Roofing & Green Roofing

Mining

Tunnel & Underground Works

CE 1213-CPR-3269

SKZ Notified body

Wallbarn Ltd
Unit 16 Capital Business Centre
22 Carlton Road, South Croydon. CR2 0BS
Phone : 0208 916 2222 Email : sales@wallbarn.com Website : www.wallbarn.com