NONWOVEN GEOTEXTILE - NEEDLE PUNCHED

Technical Comparison Sheet

Environmental Grade

Nonwoven Geotextile

- Drainage
- Separation
- Erosion Control
- Reinforcement
- Stabilization
- Protection

Nonwoven geotextiles are made from polypropylene fibers. These synthetic fibers are needled punched together to create an interlocking grid with impressive dimensional stability properties. Generally, geotextiles are identified by their mass per unit area instead of their thickness.

Environmental grade geotextiles have a more consistent thickness throughout, which can be crucial for certain environmental applications. They are best suited for applications prioritizing reinforcement, stabilization, and protection. They are comparable with the civil grade series, however, because of their consistency they have slightly better mechanical properties.

Minimum Average Roll Values			Product Series					
Property	Test Method	Unit	NT04-E	NT06-E	NT08-E	NT10-E	NT12-E	NT16-E
Physical								
Mass/Unit Area	ASTM D- 5261	oz/yd² (g/m²)	4 (136)	6 (203)	8 (271)	10 (339)	12 (407)	16 (544)
Mechanical								
Grab Tensile	ASTM D- 4632	lbs (N)	120 (534)	170 (757)	220 (979)	270 (1200)	320 (1424)	390 (1736)
Elongation	ASTM D- 4632	%	50	50	50	50	50	50
CBR Puncture	ASTM D- 6241	lbs (KN)	335 (1.5)	435 (1.9)	600 (2.7)	725 (3.2)	925 (4.1)	1125 (5.0)
Trapezoidal Tear	ASTM D- 4533	lbs (N)	50 (223)	65 (289)	95 (423)	105 (467)	125 (556)	150 (668)
UV Resistance	ASTM D- 4533	% Retained @ 500hrs	70	70	70	70	70	70
Hydraulic								
Apparent Opening Size	ASTM D- 4751	US Sieve (mm)	70 (0.21)	70 (0.21)	80 (0.18)	100 (0.15)	100 (0.15)	100 (0.15)
Permittivity	ASTM D- 4491	sec ⁻¹	1.7	1.5	1.5	1.2	1.0	0.7
Permeability	ASTM D- 4491	cm/sec	0.21	0.25	0.30	0.29	0.29	0.26
Water Flow Rate	ASTM D- 4491	g/min/sf (I/min/m2)	135 (5500)	110 (4479)	95 (3895)	80 (3280)	60 (2445)	50 (2050)
Dimensions								
Typical Roll Size	Measured	ft (m)	15 x 300 (4.57 x 91.5)					
Area	WxL	ft²(m²)	4500 (418)	4500 (418)	4500 (418)	4500 (418)	4500 (418)	4500 (418)

Notes:

- (1) All roll widths/lengths have a tolerance of ±1 %.
- (2) Custom roll lengths can be ordered. Transportation cost might be affected.
- (3) Penteco is a distributor for this product. Manufacturing partners are based out of Canada & USA.
- (4) Manufacturer's data sheet provided at time of bid/purchase includes adjusted widths/lengths.

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