



TERRE ARmee



Separation and Filtration



TerraTextile – NW_{PP}
NON-WOVEN GEOTEXTILES

Subsurface Drainage and Transmission



TerraTextile – NW_{PP}

Non-woven geotextiles are needle-punched to provide excellent strength and hydraulic characteristics necessary for filtration, separation, protection against damage, ground stabilization, drainage, and erosion control applications. Needle punched non-woven is manufactured by mechanically orienting and interlocking polypropylene fibers of a carded web. With the combination of drafting and heat, non-woven needle punched fabrics deliver high strength products with relatively high elongations that offer high survivability when implemented with engineered design.

Applications

- **Separation and Filtration:** Prevents intermixing of subgrade soils and subbase materials and preserves the characteristics of the aggregate material.
- **Subsurface Drainage and Transmission:** Placed as a drainage within the soil and allows long term drainage, preventing migration of soil particles and exhibiting excellent transmission property.
- **Erosion Control:** Minimizes the movement of soil particles with surface water and prevents erosion of soil on a slope.
- **Silt Fence:** Acts as a temporary barrier to mitigate silt and other sediment from polluting nearby streams, rivers and sensitive environments.

Technical Parameters

Properties	Test Method	Units	Drainage/ Filtration/ Erosion Control/ Separation/ Underlayment										
			TNW131	TNW135	TNW140	TNW142	TNW142 SP	TNW160	TNW170	TNW180	TNW110	TNW112	TNW116
Minimum Average Roll Value (MARV)ⁱ													
Physical Properties													
Mass Per Unit Area	ASTM D 5261	g/m ²	105	119	136	142	160	203	237	271	339	407	542
Mechanical Properties													
Wide Width Tensile Strength at Break	ASTM D 4595	kN/m	6	7	8	9	9	12	14	16	20	25	28
Wide Width Elongation	ASTM D 4595	%	50	50	50	50	50	50	50	50	50	50	50
Grab Tensile Strength	ASTM D 4632	N	355	401	445	533	556	711	800	911	1112	1334	1690
Grab Elongation	ASTM D 4632	%	50	50	50	50	50	50	50	50	50	50	50
Trapezoid Tear	ASTM D 4533	N	133	178	200	222	222	267	333	378	444	511	644
CBR Puncture Resistance	ASTM D 6241	N	778	1178	1334	1512	1512	1823	2113	2370	3113	3780	4804
Hydraulic Properties													
Permittivity	ASTM D 4491	s ⁻¹	2.20	2.00	2.00	1.70	1.60	1.50	1.40	1.40	1.20	1.00	0.70
Water Flow Rate	ASTM D 4491	l/m ² /s	101.5	101.5	94.82	91.67	78.00	74.66	74.67	64.5	54.18	50.92	33.92
Maximum Apparent Opening Size (AOS) ^v	ASTM D 4751	mm	0.300	0.300	0.212	0.212	0.212	0.212	0.212	0.180	0.150	0.150	0.150
UV Resistance at 500 hrs	ASTM D 4355	%	70	70	70	70	70	70	70	70	70	70	70
Standard Packaging													
Roll Width ⁱⁱ	-	m	3.81 / 4.57				3.81 / 4.57				4.57		
Roll Length ⁱⁱ		m	109.73				109.73 / 91.44				45.72		
Estimated Roll Weight ⁱⁱⁱ		kg	418 / 501				418 / 418				209		

ⁱ All the values mentioned are of minimum average roll values (MARV) except for apparent opening size (AOS) which is maximum average roll value (MaxARV)

ⁱⁱ These values are subject to ±1% variation

ⁱⁱⁱ Other roll sizes also available

^v Not applicable

NOTES

- A. These properties may change at the time of handling, storage and shipping.
 B. Other grades and polyester material also available as per requirement.
 C. The values can be customized.
 D. The above values are subject to change as per discretion of the company.