



TDF HS Series Polypropylene Continuous Filament Geotextiles

TDF HS Series geotextiles are needle-punched continuous filament geotextiles and made of 100% virgin polypropylene with UV resistance.

They have been widely applied in civil engineering and geotechnical engineering such as pavement, railway, landfill, construction, hydraulic, landscape, etc.

High Strength Coarse Denier

TDF adopts advanced spinning technology, the fiber fineness of geotextiles can reach up to 14D which is 3 times of the spinning fineness of traditional technology, which is called high strength coarse denier fiber. It has excellent mechanical properties, hydraulic properties. It is an excellent geosynthetic material.

High Mechanical Properties

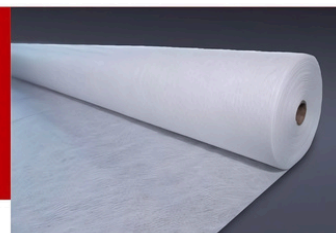
polypropylene spunbonded needle-punched geotextiles are made of continuous polypropylene filaments, the tensile fracture of the geotextiles mainly is the fracture of fibers, while mainly is drawn out between fibers for the staple fiber geotextiles. Therefore, the strength, elongation and other mechanical properties of polypropylene spunbonded needle-punched geotextiles are better than staple fiber geotextiles.

High Resistance In Applications

Polypropylene has excellent acid and alkali resistance(pH2~pH13), and is applied for areas touched with alkaline interfaces such as cement, lime, and saline-alkali land. High abrasion resistance and UV resistance of polypropylene, which ensures durability and operational reliability.

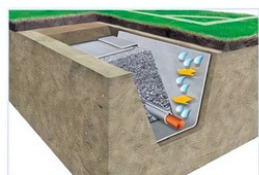
Easy To Line

Polypropylene spunbonded needle-punched geotextile has low needle-punched density, the fabric surface is soft and not stiff, more convenient to lay and install, and fits the working surface better.



Roughly guidance of geotextile selection

	HS100	HS200	HS300	HS400	HS500	HS600	HS700	HS800	HS1000
Pavement construction Reinforcing soft subgrade									
Hydraulic engineering Separation & protection									
Landfill, drainage Protecting geomembranes									
Railway construction Buffer layer									
Environmental protection Filtration & Erosion control									



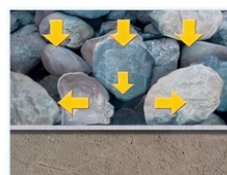
Filtration



Drainage



Reinforcement



Separation



Erosion Control



TDF HS Series Polypropylene Continuous Filament Geotextiles

TDF HS Series geotextiles are needle-punched continuous filament geotextiles and made of 100% virgin polypropylene with UV resistance. They are characterized by high resistance to installation damage, high water permeability and high UV & Chemical resistance.



Properties	Unit	HS100	HS200	HS300	HS400	HS500	HS600	HS700	HS800	HS1000
Identification Properties										
Mass Per Unit Area [ISO 9864]	g/m ²	100	200	300	400	500	600	700	800	1000
Thickness 2 pKa [ISO 9863-1]	mm	0.8	1.6	2.3	3.0	3.3	3.9	4.1	4.5	5.0
Mechanical Properties										
Tensile Strength [ISO 10319]	kN/m	6.5	14	23	28	35	42	50	56	65
Elongation at Max. Load [ISO 10319]	%	> 55	> 55	> 55	> 55	> 55	> 55	> 55	> 55	> 55
Grab Strength [ASTM D4632]	N	400	1000	1500	2100	2500	3000	3500	4000	5000
Grab Elongation [ASTM D4632]	%	> 55	> 55	> 55	> 55	> 55	> 55	> 55	> 55	> 55
CBR Puncture Resistance [ISO 12236]	N	1200	2200	3500	4500	5500	6500	7600	8700	10000
Trapezoidal Tear Strength [ISO 9073-4]	N	240	500	700	900	1100	1200	1300	1400	1600
Cone Drop Test * [ISO 13433]	mm	34	27	20	17	14	11	9	7	5
Hydraulic Properties										
Flow Rate (50mm Head) [ISO 11058]	l/m ² /s	70	60	50	35	25	15	15	10	10
In-plane Water Flow 20 kPa [ISO 12958]	l/m.h	2×10 ⁻⁴	8×10 ⁻⁴	1×10 ⁻³	1×10 ⁻³	1×10 ⁻³	1×10 ⁻³	1×10 ⁻³	1×10 ⁻³	1×10 ⁻³
Permittivity [ISO 11058]	s ⁻¹	1.6	1.4	1.2	0.9	0.6	0.35	0.2	0.1	0.05
Open Size O ₉₀ * [ISO 12956]	mm	0.3	0.2	0.11	0.1	0.07	0.07	0.06	0.05	0.05
Durable Properties										
UV Resistance After 500 hrs [ASTM D4355]	%	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70	> 70
Chemical Resistance	%	No effect in the range of pH2-13								
Packaging										
Roll Width *	m	≤6	≤6	≤6	≤5.7	≤5.7	≤5.7	≤5.7	≤5.7	≤5.7
Roll Length	m	Customizable and Optimal Load Solution								

The values given here are average values obtained in our laboratories and in third-party independent laboratories.

* The values given here are maximum values.

The right is reserved to make changes without notice any time.