

Nonwoven Geotextile for Drainage, Filtration,
Separation and Reinforcement

Geos Filter

Geos is DAEHAN's
registered trademark.



DAEHAN *i. m.* Co., Ltd.

Geos Filter



What is Geos Filter?

Geos Filter is a polyester needle-punched nonwoven geotextile made of continuous filament fiber for drainage, filtration, separation and reinforcement in public works such as river or tide bank protection, blind ditch and tunnel works.

Through special designing and production process, **Geos Filter** is produced so that it can provide optimum physical and hydraulic properties suitable for public works.



Geos Filter has higher tensile and tearing strength than other products, and also has uniform openings in filament fibers. The uniform openings are consistent throughout the filter. Uniform openings (AOS) provide excellent hydraulic performances.

Geos Filter made of 100% polyester has a good resistance to UV light, aggressive bacteria in soil, acid and alkali agents.

Geos Filter is a geotextile filter which doesn't make environmental contaminants and it is stable at temperatures of $-40^{\circ}\text{C} \sim 100^{\circ}\text{C}$.

As **Geos Filter** has flexible and strong structure, it can be easily seamed and installed. **Geos Filter** is produced in various widths from 2.1m to 4.2m and well adapted for field works. It significantly reduces construction costs. The specific gravity of **Geos Filter** is 1.36 which allows an excellent underwater installation.

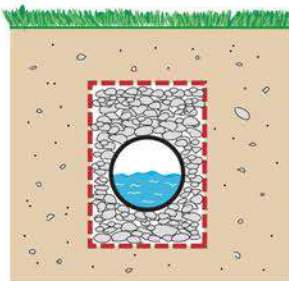




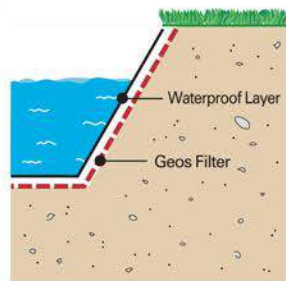
Nonwoven
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Application of Geos Filter

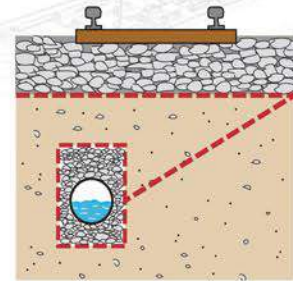
- Prevention of landslide of revetment slope
- Erosion control of bank slope
- Protection of waterproof layer in disposal landfill
- Filtration of blind ditch and collecting culvert
- Protection and drainage of waterproof sheet in tunnel
- Prevention of road cracking



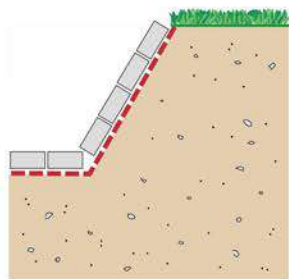
Filtration of blind ditch
and collecting culvert



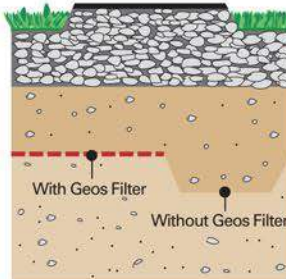
Protection of waterproof layer



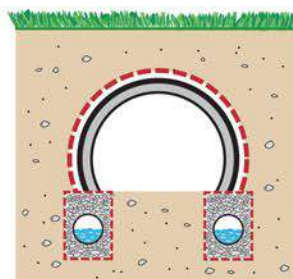
Separation of the roadbed
in railway construction



Application for revetment



Prevention of road cracking



Protection of waterproof
layer in tunnel

Geos Filter



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Specifications of Geos Filter

Property	Unit	Test Method	GF15	GF20	GF25	GF30	GF35	GF40	GF45	GF50
Raw Material		ASTM D 276	Polyester							
Unit Weight	g/ m ²	ASTM D 5261	150	200	250	300	350	400	450	500
Thickness (2kN/ m ²)	mm	ASTM D 1777	1.2	1.4	1.8	2.6	3.0	3.3	3.6	4.0
Tensile Strength, MD	kN/m	ASTM D 4595 ISO 10319	12	17	20	22	27	32	35	37
Tensile Strength, CD	kN/m	ASTM D 4595 ISO 10319	7	10	12	15	17	20	22	25
Grab Tensile Strength, MD	N	ASTM D 4632	720	1,100	1,300	1,450	1,800	2,250	2,350	2,450
Grab Tensile Strength, CD	N	ASTM D 4632	540	640	850	1,050	1,350	1,450	1,500	1,600
Elongation	%	ASTM D 4632	60~100							
Trapezoid Tear Strength, MD	N	ASTM D 4533	250	300	370	520	560	650	750	720
Trapezoid Tear Strength, CD	N	ASTM D 4533	200	240	280	360	460	470	490	500
Puncture Resistance	N	ASTM D 4833	270	350	390	460	600	650	700	750
Permeability	cm/s	ASTM D 4491	>1 × 10 ⁻¹							
Nominal Dimension										
Roll Width	m		4	4	4	4	4	4	4	4
Roll Length	m		100/200	100/200	100/200	100	100	100	100	100
Container Loading(40'HC)	m ²	Approx.	40,000	30,000	24,000	20,000	16,800	15,000	13,200	12,000

The values given are indicative and correspond to average test results obtained in our laboratory and independent authorized institutes.
 The above specifications include some standard products in the range from 150g/m² to 500g/m² only. Upon request, Geos Filter up to 1,000g/m² is available.
 The right is reserved to make changes without notice.