Geo Textile

Polyester Fiber Non-Woven Needle Punch

Geotextiles form from geo-synthetic fibers rather than natural ones such as cotton, wool, or silk. These synthetic fibers are made into flexible, porous fabrics and are matted together in a random non-woven manner. Geotextiles are porous to liquid flow across their manufactured plane and also within their thickness, but to a widely varying degree. There are at least 100 specific application areas for geotextiles that have been developed. However, the fabric always performs at least one of four discrete functions: Separation, Reinforcement, Filtration, Drainage.



Physical Properties

A planar, permeable, polymeric textile material, which may be nonwoven, knitted or woven, used in contact with soil/rock and/or any other geotechnical material in civil engineering applications.

Mechanical Properties

Geotextile is a part of technical textile which is used for special purposes. Geotextiles form one of the two largest groups of geosynthetics. The material of geotextile comes from: Polyester, Polyamide, Polypropylene, Polyethylene. The application of geotextile includes civil engineering, coastal engineering, and construction sites. Geotextiles are located in the tension area to make the soil stronger.



Endurance

Geotextile is used worldwide and has produced very positive results from 1950 to the present. In almost every geotechnical project, this product is installed because of its endurance.

Application	Endurance
Construction aid	0.5–1 year
Permanent	80–100 years
Filter/Drainage (replaceable)	10–25 years
Filter/Drainage (not replaceable)	80–100 years
Reinforcement in a dam	5 years
Retaining structures	80–100 years
Drainage/Protection	100 years
Dams and tunnels	100–200 years
Landfill liners/Geomembrane	100–1,000 years

Applications

The non-woven geotextile works in many ways:

- As a separation layer
- For filtration
- For reinforcement of soil
- For liquid drainage
- For protection
- For erosion control
- For protection of other geosynthetics
- For resistance against sea waves at seashore



0301-2228210 | 021-35245132 | info@buildingcomforts.com
Office No. 4, Plot 40-C, 12th Nishat Commercial Lane, DHA Phase-6, Karachi - Pakistan
www.buildingcomforts.com

BUILDING COMFORTS™
The Water Proofing Company

Technical Parameters

Mass per Square Meter (g/m^2)		100	150	200	250	300	350	400	450	500	600	800
Weight Variation	%	6	5	5	5	4	4	4	4	4	4	4
Thickness	M m	0.8	1.2	1.6	1.9	2.2	2.5	2.8	3.1	3.4	4.2	5.5
Width Variation	%	±0.5										
Break Strength	KN /m	4.5	7.5	10.5	12.5	15	17.5	20.5	22.5	25	30	40
Break Elongation	%	40–80										
Coefficient of Permeability	cm /s	$(1.0–9.9) \times 10^{-1}$										
Tear Strength	KN /m	0.14	0.21	0.28	0.35	0.42	0.49	0.56	0.63	0.7	0.82	1.1

Other Information	Notes
Specification Variation	±10% acceptance in value and quantity
Material	According to the GLC provided samples
Colour	Manufactured on demand

0301-2228210 | 021-35245132 | info@buildingcomforts.com
Office No. 4, Plot 40-C, 12th Nishat Commercial Lane, DHA Phase-6, Karachi - Pakistan
www.buildingcomforts.com
BUILDING COMFORTS™
The Water Proofing Company