HIMARKA International FZE

Company Profile

GEOTEXTILE

www.himarka.com
E-mail: info@himarka.com

"Himarka is a trustworthy supplier can offer various geotextile to make the foundation become more strength."

For over 10 years, Himarka International has provided many geotextile products to customers to stabilize the foundation and prevent infiltration in many places. We have precision machine, professional teams and adequate experience to provide the high quality geotextile products and services.

Geotextile is a kind of geotechnical material that is used to prevent infiltration and stabilize foundation. Our geotextile fabric has good corrosion resistance and weather resistance. So it can work well in the underground constructions without damaged. Geotextile with liners is made of geotextile and different liners. The permeability of it is better than general geotextile fabric. In addition, our products have good tensile strength, so it is not easy to be damaged during the construction.

We have geotextile fabric, geotextile with liners. You can choose one according to your needs.

Feature

- High tensile strength, not easy to be damaged.
- High bearing capacity.
- Good impervious performance.
- Wear resistance, corrosion resistance, high and low temperature resistance.
- Good aging resistance.
- Easy to install, reduce costs.

Application

- Road
- Railway
- Dam
- Tunnel
- Expressway
- Embankment
- Airport runway
- Landfill
- Slope protection
- Pond
- River bank
- Drainage system

Geotextile in highway | Geotextile in road | Geotextile liners in slope | Geotextile liners in ground

Geotextile Fabric

Geotextile fabric is a kind of construction material that used in civil engineering. Geotextile fabric is widely used in filtering, protecting, draining, isolation and other functions. And it is widely used with geomembrane. Our geotextile fabrics have two kinds: long fiber or short fiber geotextile fabric.

Long fiber geotextile fabric is made of polypropylene fiber silk or polyester filament through the acupuncture craft.

Short fiber geotextile fabric is made of polyester staple fiber. Compared with each others, the tensile strength of long fiber geotextile fabric is higher than short fiber geotextile fabric. You can choose one according to your needs.

Specification

- **Long fiber geotextile fabric.**
  - **Material:** Polypropylene fiber silk or polyester filament.
  - **Width:** 4–6 m, or can be customized.
  - **Weight:** 100–800 g/m^2.
  - **Length:** 50–100 m, or as your request.
  - **Color:** White, black, or as your request.
- **Short fiber geotextile fabric.**
  - **Material:** Polyester staple fiber.
  - **Color:** Black, white, or as your request.
  - **Fracture strength:** 20 kN/m.
  - **Width:** 1–6 m, or can be customized.
  - **Weight:** 100–600 g/m^2.
- **Standard:** GB/T 17638, JT/T 520, GB/T 17640.

Long fiber geotextile fabric

Short fiber geotextile fabric

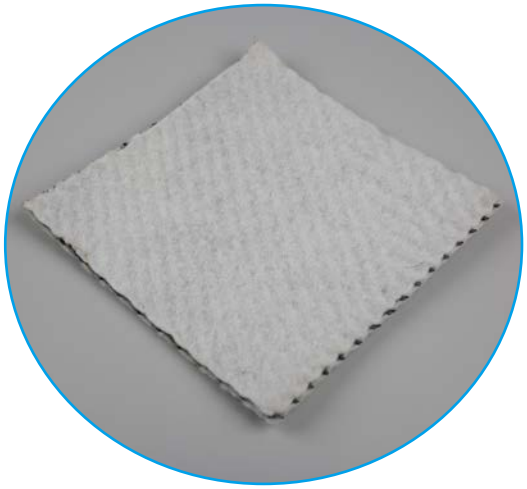
Table 1: Long Fiber Geotextile Fabric Technical Index

Item									
Nominal breaking strength	4.5	7.5	10	15	20	25	30	40	50
Longitudinal and transverse rupture strength (kN/m ≥)	4.5	7.5	10.0	15.0	20.0	25.0	30.0	40.0	50.0
Standard strength corresponds to elongation, (%)	40%–80%								
CBR burst strength (kN ≥)	0.8	1.6	1.9	2.9	3.9	5.3	6.4	7.9	8.5
Longitudinal to tear strength (kN ≥)	0.14	0.21	.028	0.42	0.56	0.70	0.82	1.10	1.25
Equivalent aperture O90 (mm)	0.05–0.20								
Thickness (mm ≥)	0.8	1.2	1.6	2.2	2.8	3.4	4.2	5.5	6.8
Width deviation (%)	-0.5%								
Deviation of mass per unit area (%)	-5%								

Table 2: Short Fiber Geotextile Fabric Technical Index

Item	Test	Unit	Value										
1	Mass per unit area	g/m²	100	150	200	250	300	350	400	450	500	600	800	1000
2	Deviation of mass per unit area	%	-8	-8	-8	-8	-7	-7	-7	-7	-6	-6	-6	-6
3	Thickness	mm ≥	0.9	1.3	1.7	2.1	2.4	2.7	3.0	3.3	3.6	4.1	5.0	5.9
4	Width deviation	%	-0.5%											
5	Breaking strength	kN/m ≥	2.5	4.5	6.5	8.0	9.5	11.0	12.5	14.0	16.0	19.0	25.0	58.0
6	Elongation at break	% ≥	25%–100%											
7	CBR breaking force	kN ≥	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.2	4.0	4.5
8	Equivalent aperture (O90)	mm	0.07–0.2											
9	Vertical permeability coefficient	cm/s	$K \times (10^{-1} - 10^{-3})$ K = 1.0–9.9											
10	Tearing strength	kN ≥	0.08	0.12	0.16	0.20	0.24	0.28	0.33	0.38	0.42	0.46	0.60	0.70

Geotextile Liners



Geotextile liner is a kind of composite materials that combined the geotextile and many kinds of liners. It is widely used to stabilize the foundation. We have three kinds of geotextile liners.

Geomembrane liners, also called impervious membrane, is made of geotextile and geomembrane. It has good impervious performance.

Geosynthetic clay liner is also named sodium bentonite composite waterproof pad. The high swelling sodium bentonite is filled between geotextile and non-woven fabric make it also has good impervious performance.

Three dimensional composites drainage network is made of three-dimension geonet and two pieces of geotextile. It has good filtration and drainage functions. You can choose suitable one depends on your needs.

Specification

- **Geomembrane liners.**
  - **Material:**
    - **Geomembrane:** PVC, HDPE, LDPE, EVA, ECB geomembrane.
    - **Geotextile:** Short fiber needle punched geotextile, woven geotextile, glass fiber mesh, etc.
  - **Width:** 3–6 m.
  - **Structure:**
    - **A piece of geotextile with a membrane:**
      - **Weight:** 100–1000 g/m^2.
      - **Thickness:** 0.1–1.5 mm.
    - **Two pieces of geotextile with a membrane:**
      - **Weight:** 80–600 g/m^2.
      - **Thickness:** 0.2–1.5 mm.
    - **Two membranes with a piece of geotextile:**
      - **Weight:** 100–1000 g/m^2.
      - **Thickness:** 0.1–0.8 mm.

Table 3: HDPE Geomembrane Liners Technical Index

Item	Test	Test value	
		Ordinary	Environmental friendly
1	Thickness (mm)	0.2–4	
2	Width (m)	2.5–8	
3	Tensile strength (vertical and horizontal) MPa	≥ 17	≥ 25
4	Elongation at break (horizontal and vertical) %	≥ 450%	≥ 550%
5	Right angle tear strength (N/mm)	≥ 80	≥ 110
6	Carbon black content (%)	2.0%–3.0%	2.0%–3.0%
7	Environmental stress crack resistance (F20)	-	≥ 1500
8	-70 °C low temperature impact embrittlement property	-	pass
9	200 °C oxidation induction time	-	≥ 20

Table 4: ECB Geomembrane Liners and EVA Geomembrane Liners Technical Index

Number	Item	Index
1	Thickness (mm)	0.2–4
2	Width (m)	2.5–8
3	Tensile strength (vertical and horizontal) (MPa)	≥ 16
4	Elongation at break (horizontal and vertical) (%)	≥ 550
5	Right angle tear strength (N/mm)	≥ 60
6	Water vapor permeability coefficient (g, cm/cm².s.Pa)	< 1.0 × 10–13
7	Operating temperature range (°C)	+70–-70

Table 5: PVC Geomembrane Liners Technology Index

Item	Test	I type	II type
1	Tensile strength (≥)	8.0	12.0
2	Elongation at break (%)	200%	250%
3	Heat treatment size change rate (%)	3.0%	2.0%
4	Low temperature bending (°C)	-20 °C without crack	-25 °C without crack
5	Puncture resistance	No seepage water	
6	Impervious property	No seepage water	

- **Geosynthetic clay liner.**
  - **Material:** Sodium bentonite, special composite geotextile and non-woven fabric.
  - **Width:** 6 m.
  - **Length:** 30 m.
  - **Weight:** 4–6 kg/m^2.
- **Three dimensional composites drainage network.**
  - **Material:** High density polyethylene.
  - **Length:** 30, 40, 50 m, or as your request.
  - **Thickness:** 5–8 mm.
  - **Non woven geotextile unit weight:** 200 g/m^2.
  - **Mass per unit area:** 700, 1000, 1300, 1600 g/m^2.

Table 6: Three Dimensional Composites Drainage Network Technical Index

Item	Drainage network core	Units	Value			
1	Unit weight	g/m²	750	1000	1300	1600
2	Thickness OV = 20 KPa	mm	5.0	6.0	7.0	7.5
3	Hydraulic conductivity	m/s	K × 10–4	K × 10–4	K × 10–3	K × 10–3
4	Elongation	%	< 50%	< 50%	< 50%	< 50%
5	Tensile strength (core network)	kN/m	8	10	12	14
6	Geotextile	g/m²	Heavier grades of geotextiles can be bonded to geonet on request.			

- **Standard:** GB/T 17643.

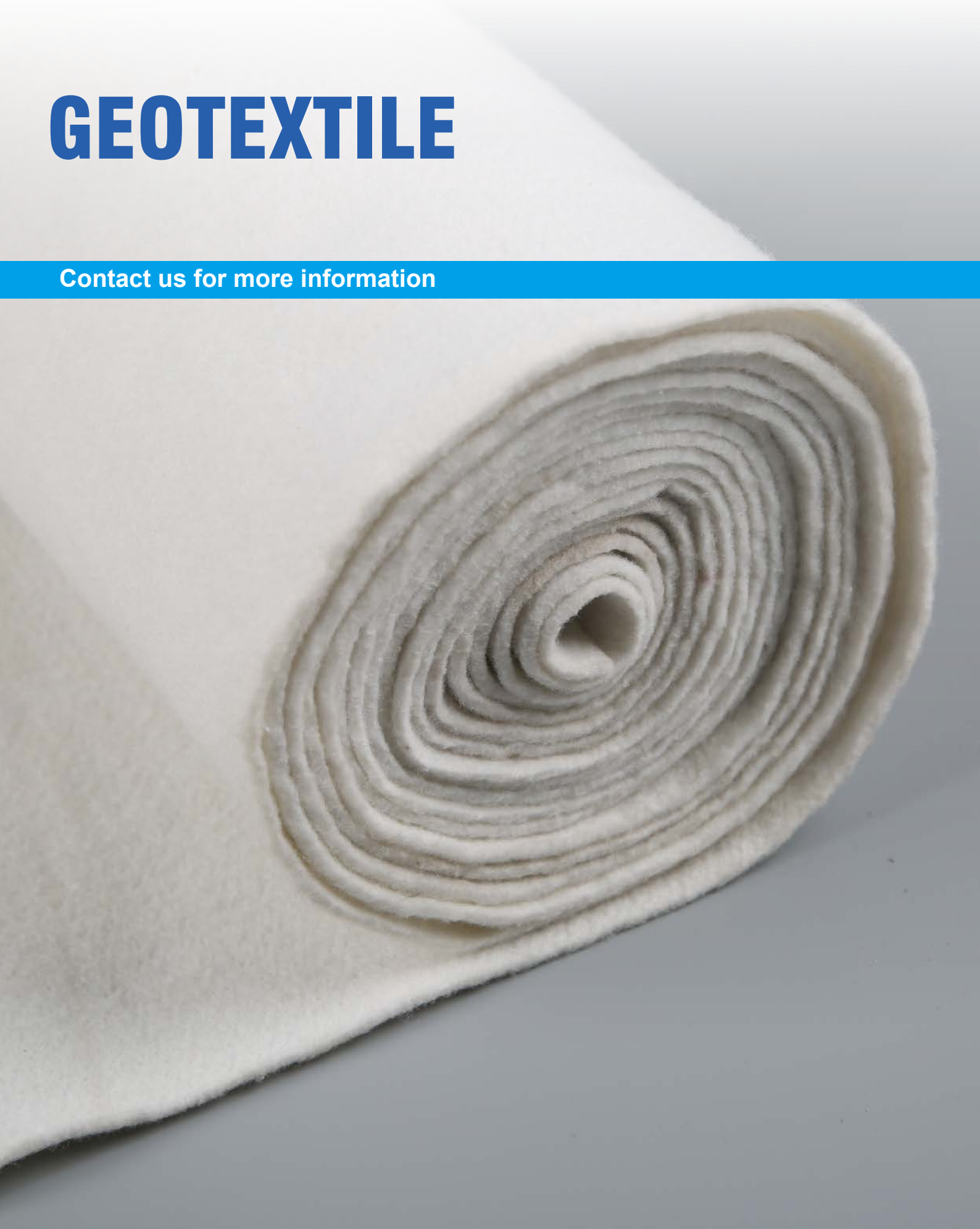
Geomembrane liners

Geosynthetic clay liner

Three dimensional composites drainage network

GEOTEXTILE

Contact us for more information



HIMARKA International FZE

Reach us
B-16/160 Sharjah Research Innovation and Technology Center, Sharjah UAE
Tel. +971 544750206
E-mail: info@himarka.com
Web: www.himarka.com