

# Shandong Tianhai New Materials Engineering Co., Ltd

## HDPE geomembrane



### Product survey

- 1, Tianhai flat smooth HDPE sheet is produced from high-grade polyethylene resin produced by foreign and domestic large petrochemical enterprises by three-layer pressing and plastic formation technology and double layer pressing and rolling technology.
- 2, The company is the only enterprise that uses the two technologies to produce geomembrane in the same industry.
- 3, The company has plastic formation experience for more than fifteen years, makes close cooperation with earthwork builder, makes continuous innovation, seeks perfection, and makes great efforts in providing the most reliable products to the customers.

### Performance feature

- 1, Good physical and mechanic performance, high tearing resistance, strong deformation adaptability, puncture, aging, ultraviolet radiation, oil and salt, alkali and corrosion resistance,
- 2, high and low temperature resistance, non-toxicity, long operational lift, good waterproof, drainage, anti-seepage and damp proof effects,
- 3, complete width and thickness specifications, low cost and simple construction.

### Product application

1. Environmental protection and environmental sanitation (for example, living landfill yard, sewage treatment plant, power plant adjusting tank, industrial and hospital solid waste, etc.).
2. Water conservancy (for example, anti-seepage, leakage blockage and reinforcement of river, lake and reservoir dikes and banks, anti-seepage of canal, vertical central wall, side slope, etc.).
3. Municipal projects (underground project of subway and structure, anti-seepage of plantation roof and roof garden, lining of sewage pipe, etc.).
4. Landscape garden (man-made lake, river way, cistern, bottom lining and side slope of pool in golf course, waterproof and anti-seepage of greening lawn, etc.).

5. Petrochemical industry (anti-seepage of oil tank of chemical plant, oil refinery and filling station, lining of chemical reaction tank and sedimentation tank, etc.).
6. Mine industry (bottom lining and anti-seepage of washing and selecting tank, piling and soaking tank, ash yard, dissolution tank, pile yard and tailing, etc.).
7. Traffic facilities (reinforcement of road foundation and anti-seepage of subway and culvert).
8. Agriculture (anti-seepage of ditch, channel, reservoir, drinking water tank, pool and irrigation system).
9. Aquiculture industry (lining of intensive and plant type cultivation tank, fish pound and shrimp pool, side slope of sea cucumber ring, etc.).
10. Salt industry (crystal tank of salt field, tarpaulin cover of halogenation tank, salt film, plastic tarpaulin cover of salt tank).



## Geomembrane

### Part one: Description of HDPE geomembrane

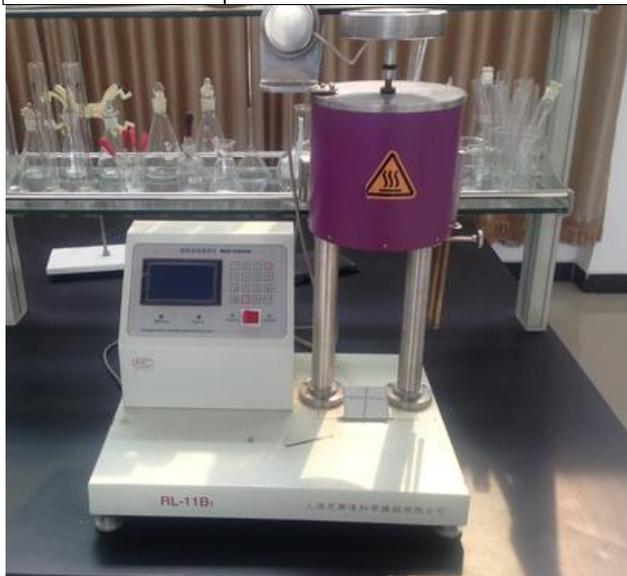
1. HDPE, LLDPE glossy geomembrane is one double-surface membrane with flat and smooth appearance made from virgin resin with special formula.
2. HDPE ordinary rough geomembrane is single-surface or double-surface HDPE geomembrane with uniform and coarse appearance made from virgin resin with special formula.
3. HDPE glossy geomembrane has excellent impermeable and antifouling property and mechanical property; dimensional stability, chemical stability, thermal resistance and aging resistance are good; in the meantime, it also has excellent resistance to UV radiation.
4. HDPE ordinary rough geomembrane has excellent impermeable and antifouling property and mechanical property; dimensional stability, chemical stability, thermal resistance and aging resistance are good; in the meantime, it also has excellent resistance to UV radiation. Its large friction coefficient and skid resistance is very suitable for pavement of side slopes surrounding refuse landfill and twice pavement of geotextile. In the meantime, it can also enhance bearing capacity and deformation

resistance. It is usually used in such project at which surface of membrane of side slope need be covered with earth and large friction coefficient is required.

**Part Two: The Specification of HDPE geomembrane**

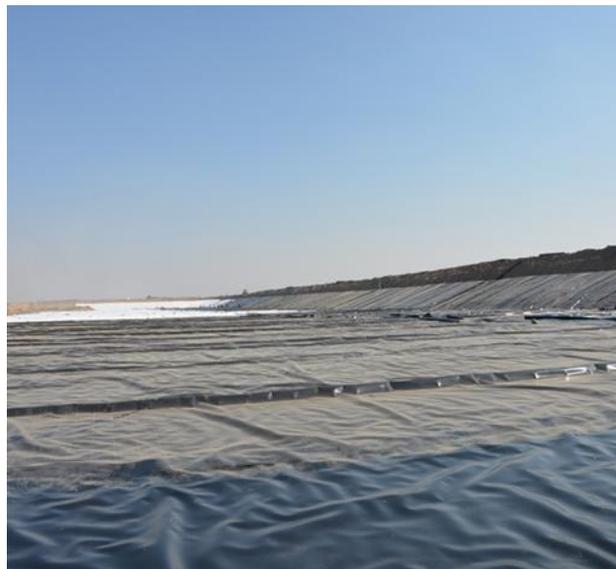
Thickness is from 0.12mm to 4.0mm and breadth is from 4m to 9m. Length shall be designed according to engineering design and clients' requirements.

Thickness	0.12mm-4.0mm
Length	50m/roll,100m/roll,150m/roll or as your choice
Width	4.0m-9.0m or as your choice
Color	White/Black/Blue/Green, mainly black
Material	HDPE
Delivery port	Qingdao
Package:	woven bag or as customers' requests
Product time	2-20 days
Features	1.Good physical and mechanic performance
	2.High tearing resistance, strong deformation adaptability
	3.Puncture-resisting, aging resisting, ultra-violet radiation, oil and salt, and corrosion resistance
	4.Good adaptability to high and low temperature, non-toxicity, long service life
	5.Good waterproof, drainage, anti-seepage and damp proof effects
	6.Complete width and thickness specifications, low cost and easy installation.
Note	We can do as your demand,please feel free to contact us for more information



### Part Three: The Application of HDPE geomembrane

- 1) Environmental protection sanitation (such as solid waste landfills, sewage treatment plants, power plants Chi-conditioning, industrial, hospital solid waste, etc.) .
- 2) Water (such as rivers, lakes and reservoirs of the anti-dam, plugging, reinforcement of the canal seepage, the vertical wall of the heart, slope protection, etc.).
- 3) Municipal Engineering (subway, on the ground floor of the building, planted roof, the roof garden of anti-seepage, sewage pipes lining, etc.).
- 4) Landscape (man-made lake, river, reservoir, golf courses reservoirs of the substrate, slope protection, green lawn of the waterproof moisture, etc.).
- 5) Petrochemical (chemical plants, oil refineries, gas storage tanks of the anti-chemical reaction tanks, sedimentation tanks of the lining, etc.).
- 6) Mining (washing and pool heap leaching, the ash-field, dissolved, precipitation, the yard, the tailings seepage substrates, etc.) .



**Part Four: The Technical of HDPE geomembrane**

**HDPE geomembrane technical index of ASTM test GM 13 standard**

No.	Item	Test Value						
		0.75mm	1.0 mm	1.25 mm	1.5 mm	2.0 mm	2.5 mm	3.0mm
1	Minimum Density(g/cm³)	0.939						
2	Tensile Property							
	Strength at yield,N/mm	11	15	18	22	29	37	44
	Strength at break ,N/mm	20	27	33	40	53	67	80
	Elongation at yield,%	12						
	Elongation at break,%	700						
3	Tear Resistance N	93	125	156	187	249	311	374
4	Puncture Resistance N	240	320	400	480	640	800	960
5	Stress Crack Resistance, hrs	300						
6	Carbon Black Content, %	2.0-3.0						
	Carbon Black Dispersion	1 or 2						
7	Standard OTI Min	100						
	High Pressure OTI Min	400						
8	Impact Cold Crack at -70°C	Pass						
9	Water vapor permeability (g.cm/cm2 .s.Pa)	≤1.0×10-13						
10	Dimensional Stability (%)	±2						



**Part Five: Packing &Shipping**

**woven bag or as customers' requests**

**Shipping: 7 days after receive the advance payment**

**Part Six: Certification**

Our products are well sold to various regions in China, and are exported to South Africa, Algeria, Russia, Australia and Israel.

Our company has passed ISO9001:2000 International Quality System Certification, ISO14001:2004 Environment Management System Certification and GB/T28001:2001 Vocational Health and Safety System Certification.

Besides, our company has successfully passed on-site check on production license, and has gained "National Industrial Product Production License" and water-proof qualification. We have been the member of Chinese Technical Association on Geosynthetics and have been recognized as a "Provincial-level Enterprise Abiding by The Contract, Keeping Promise" for several successive years.

Besides, we were awarded with the titles of "One of Top 10 Famous Brands with Recognized Quality Assurance Standards in China's Plastic Products Industry", "Well-Known Products in China" and "One of Top 10 Enterprises among China's Composite Geomembrane Industry".

We have obtained self-supporting import and export rights.



**Part Seven: Contact**

**tinhy 天海**

*Grace Wei*

Globe Marketing Manager

**Sdtianhai**

live:graceweiyihong\_1

graceweiyihogn@sina.com

graceweiyihong@yahoo.com.hk

Contact us:office:+86 531 67895178 Email:wm002@sdthjt.com Mob/WhatsApp:+86 18663765425