SHANDONG GREENLAND ENGINEERING MATERIAL CO., LTD.

ISO9001: 2015, ISO45001: 2018, ISO14001: 2015, CE, CNAS, CRCC



Geotextile Products: Geotube Bags



Geotube Bag

The geotube bag is made of high-strength polypropylene bags, and can also be made of woven cloth material. The product material is selected according to the actual needs of the project; ordinary black; common materials 400gsm can be adjusted according to products of different specifications; the length is not limited, and the width can be multiple images The splicing width is unrestricted, but it directly affects the material strength of the dewatering pipe bag.

The wider the range, the higher the material strength required; the basic order filling height is two-thirds of the diameter of the pipe bag; customized according to the diameter of the grouting machine at the construction site, it can be according to the actual situation or add chemicals (increase the curing speed to accelerate overflow separation).



[Geotube Bags]

Made by polyester (PET) or polypropylene (PP) fiber as the raw material, making double sides ironed and pressed needle-punched non-woven geotextile through the spun bonded technology, and then processed to bag with specified dimension, fill soil, sand and fertilizer etc. Padding into bag according to local soil conditions and scientific proportion, and then spray seeds which are suitable for local climate, form a new product which could restore or create a new ecosystem.



Geotube Bags Features:

- •The construction of the geoform bag is formed through one-time sprinkler irrigation, and the construction is simple and quick.•Adopting advanced world famous brand components in pneumatic parts ,electric parts and operation parts.
- It has good durability, is not easy to decompose and weather, and can maintain its original characteristics for a long time.
- Geotube bags can adapt to various complex terrains, especially deep water bank protection, bottom protection, etc. It does not require filling of cofferdams and can be constructed directly underwater. It has a high degree of mechanization, a large slope protection area, strong integrity, good stability and long service life.
- The geotube bag has a certain degree of water permeability. After pouring mixed soil or cement mortar, excess water seeps out through the gaps in the fabric, which can quickly reduce the watercement ratio, speed up the solidification of the mixed soil, increase the mixing speed, and enhance the compressive strength of the soil.

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APPLICATION

Geotube bag dehydration technology reduces the water content in the filtration process, simplifies the water recycling process, and intercepts more than 90% of the suspended soild particles. It is an ideal choice for cleaning sludge storage tanks, clarification tanks and filtering waster projects.

- 1.Weed Blocks for Landscaped Garden Beds.
- 2.Permeable lining for planters (stops soil erosion).
- 3.Weed control under wooden boards.

4.Geotextiles used to separate aggregate/soil under sidewalk blocks or bricks 5. Helps prevent uneven settlement of road surfaces 6. Landscape fabric prevents soil erosion.

SPECIFICATIONS OF GEOTUBE BAGS

Item		Unit	Testing Standard	Technical Parameters		
		Onit	resting Standard	GT70X95B	GT70X95	
Breaking strength	MD	KN/m	ISO 10319-2015	85	85	
	CD	KN/m	ISO 10319-2015	105	115	
Elongation of break	MD	%	ISO 10319-2015	13	13	
	CD	%	ISO 10319-2015	8	8	
Sewing Tensile Strength		KN/m	ISO 10321-2008	70	90	
Static Bursting Strength(CBR)		KN	GB/T 14800-2010	8	9	
Equivalent hole size(O90)		mm	GB/T 14799-2005	0.5	0.45	
Permeability(Q50)		L/m2/s	GB/T 15789-2005	50	35	
UV-resistance(500 Hours strength retention)		%	ASTMD4355-2014	90	90	

tem		Test Standard	Unit	Technical Data						
Material				Polypropylene With Black or Sand Color						
Spec				HT50	HT70	HT90	HT105	HT120	HT200	
Tensile Strength	MD	ASTM D4595	KN/M	50	70	90	105	120	200	
	CD	ASTM D4595	KN/M	50	95	120	105	120	200	
Elongation	MD/CD	ASTM D4595	%	10,11,12,13,15						
Opening Size O90			mm	0.05-0.90 or Customized						
Length			m	20,30,50,100m						
Circumference			m	5-20m						

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APPLICATION SCENARIOS OF GEOTUBE BAGS



[Marine Engineering in Indonesia]

GEOTUBE BAGS CONSTRUCTION

Construction method of Geotube Bags:

• Planning and design: According to the needs of the project, formulate a detailed construction plan and select appropriate ecological geobag materials.

 Ground preparation: Before construction, the construction ground should be cleaned and leveled, and the stacking and installation locations of ecological geobags should be determined.
The gaps between the geotextile bags are backfilled with fine particles from the original soil excavated.

 Installation of ecological geobags: According to the design plan and the modular construction method, the ecological geobags are stacked and spliced at predetermined locations to form a complete geobag structure.

• Filling with soil: Filling with soil inside the eco-geobag. The filling density should be gradually increased to adapt to the deformation of the eco-geobag.

• Consolidate the soil: After filling, the soil should be consolidated under pressure to ensure the stability and strength of the soil.

BENEFITS OF Geotube Bags

Under the premise of fully considering the requirements of material mechanics, hydraulics, biology, botany and many other disciplines, the bags have been strictly screened against the thickness, unit mass, physical and mechanical properties, shape, fiber type, stress mode, direction, geometric size, water permeability, equivalent pore size of full plant growth and other indicators of the UV resistant ecological bags.



[Shore protection and wave prevention in Indonesia]

Geotextile bags have the characteristics of anti ultraviolet (UV), anti-aging, non - existent no combustion support and no crack extension, which truly achieve zero pollution.

 With the advantages of anti-UV, anti-aging, non-toxic, no combustion-supporting, bag rip no stretch;
Bags are soft with good integral, permeability is

strong and scouring resistance, good durable performance;

 Good plasticity and construction process is simple;
Strong corrosion resistance, resistance to microbes, high soil stability, easy for plant growth;

5. Comprehensive functions of environmental protection, ecological afforestation, soil and water conservation, forming of ecological slope protection system.

