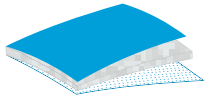




Professional solutions
you need



GclTech

Geosynthetic Clay Liner



GCL Geomembrane, is an impermeability material formed by placing natural sodium bentonite material in between two geotextile layers during production. As a result of contact of the bentonite with water, it swells and an impermeable layer is formed due to the constriction with geotextiles.

When water is withdrawn, it restores to its original condition. This cycle is continuously repeated and does not affect the waterproofing properties of the material.



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Fields of Application and Use

GCL Membrane is applied at least 10 cm thick on the compressed soil or gravel layer and at least 30 cm under concrete or reinforced concrete layer under soil or gravel. It should be applied on flat, void-free and dry surfaces.

In flat areas, it is applied by rolling or by the help of an engineering vehicle by overlapping the joints at least 30 cm. It should be laid by overlapping the roll joints at least 30 cm. In vertical surfaces, it should be fixed mechanically

- Solid waste storage areas
- Mining waste storage areas
- Irrigation, fire and golf course ponds
- Irrigation channels
- Water reservoirs
- Building foundation insulation projects

Packaging and Storage

- Materials are shipped in the form of rolls with width of 4-5 m and length of 40 -50 m.
- It must be stored in a well-drained storage area with smooth and dry surface, and the products must be covered with tarpaulin.
- Contact with humidity and water must be avoided during storage.

Advantages

- Sıkıştırılmış kil tabakası uygulaması ile karşılaştırıldığında büyük maliyet avantajı sağlar.
- Aynı geçirimsizliğe sahip kil katmanı ile karşılaştırıldığında, 100-150 kat daha az hacim ile geçirimsizlik işlevini daha iyi yerine getirir.
- Depolama ve taşıma gibi maliyetlerde çok önemli tasarruf sağlar.
- Doğal bentonit ve çevresini sarmalayan örgülü ve örgüsüz geotekstiller sayesinde üstün hidrolik ve mekanik özelliklere sahiptir.
- Ruloların serilmesinde özel ekipman ihtiyacı yoktur.
- Çok daha fazla hacim oluşturan sıkıştırılmış kil tabakası ile kıyaslandığında taşınması ve uygulanması çok daha kolay ve hızlıdır.

Technical Specifications

Cover Layer (Polypropylene non-woven) (g/m ²)	200 – 300
Carrier Layer (Polypropylene woven) (g/m ²)	100 – 200
BENTONIT LAYER	
Weight (g/m ²)	4000 – 5000
Swell Index (ml/2g)	≥ 24
Fluid Loss	≤ 18
GEOSYNTHETIC CLAY LINER	
Weight (g/m ²)	4300 – 5500
Thickness (mm)	5 – 7 mm
Roll Width (m) / Boy (m)	4-5 m / 40-50 m
Impermeability (m/sn)	5×10 ⁻¹¹
Tensile Strenght (kN/m)	≥ 12
Peel Strength (N/m)	>600