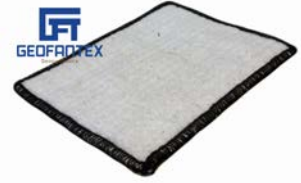


# Geofantex GCL

## Technical Data Sheet

Geofantex GCL May 2019

Geofantex GCL is a Geosynthetic Clay Liner and represents one of the most modern geosynthetic products available today. Geofantex GCL is a triple-layer composite containment (waterproofing) system comprising two geotextiles sandwiching a layer of highly reactive sodium bentonite material. When this sodium bentonite comes into contact with water, it swells to form an impermeable layer, typically with similar permeability characteristics as a one metre compacted clay layer.



**Applications** - - landfill construction, basement waterproofing, tailings dams in mining projects, building waterproofing, hydraulic engineering, artificial lakes / reservoirs, gas / vapor barriers, groundwater protection, coastal projects and general waterproofing applications.

**Installation** - Geofantex- GCL offers large savings over traditional construction methods, is easy to install, requires no specialised labour or welding equipment.

Differing engineering properties are achieved by using a variety of woven / nonwoven geotextiles within the manufacturing process.

## Mechanical Properties

( T: Typical value M: Minimum Average Roll Value - MARV)

Standards	Unit	Technical Specification GCL-NP
<b>Geotextile Properties</b>		
Top/Cap Nonwoven geotextile [ASTM D 5261]	g/m <sup>2</sup>	220
Woven geotextile [ASTM D 5261]	g/m <sup>2</sup>	110
<b>Bentonite Properties</b>		
Weight [ASTM D 5993]	g/m <sup>2</sup>	4670
Swell index [ASTM D 5890]	ml/2g	≥24
Moisture Content [ASTM D 4643]	%	12
Fluid Loss [ASTM D 5891]	ml	18
<b>Finished GCL Properties</b>		
Mass per unit area	g/m <sup>2</sup>	≥5000
Blue absorption capacity	g/100g	≥30
Max. tensile strength, MD/CMD [ASTM D 4632]	N/100mm	≥600
Elongation at break, MD/CMD	%	≥10
Peel strength [ASTM D 6496] Nonwoven/woven	N/100mm	≥60
CBR Static Puncture [ASTM D 6241]	KN	2
Permeability/Hydraulic Conductivity [ASTM D5887]	m/s	≤5.0×10 <sup>-12</sup>
Hydrostatic pressure-resistant		0.6MPa,1h No infiltration
Index Flux	(m <sup>3</sup> /m <sup>2</sup> )/s	≤ 1 x 10 <sup>-8</sup>
Bentonite wear	ml/2g	≥24
Soaked pressure- resistance [ ASTM D 5321]		≥24KPa Typical

*Above values are on an average basis, the data was obtained from in-house test laboratory, National test institutes and international test institutes. Geofantex Geosynthetics keeps the right of data changes and the final explanation right. Liability Exclusion: This publication should not be construed as engineering advice.*

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