

# **DRAINTUBE™**

*Enhanced Flow Drainage Geocomposite*



**Landfill Gas  
Management solutions**

Geocomposite  
drainage solutions  
you can count on

**afitexinov**

Afitexinov, is specialized in drainage geocomposites for over 25 years and considered a leader in this field in Europe.

**Texel**

Texel, founded in 1967, is now manufacturing a large range of non-woven materials, including very high quality geosynthetics, and is recognized as a leader in North America.

**afitex•Texel**

The experience and expertise of both Afitex and Texel stand for excellence in the design, development, manufacture and marketing of high quality specialized synthetic materials – such as DRAINTUBE® – designed primarily for drainage markets. Located in Quebec, Canada, the company transforms basic textiles into high performing geosynthetic drainage products.

DRAINTUBE® combines standard pipe and geotextile technology into a unique package offering superior long term drainage capacity and performance.

Standard 3,200 sf rolls (13.1' x 246') cover over 30% more area than other geocomposites and are installed very much like standard geotextiles. With no nets to tie together and using normal geotextile seaming methods, installation is a snap.

Our Lympha design software and our talented professionals are available to help make your project a success from concept to completion.

## DRAINTUBE® LFG TO COLLECT AND CONTROL GAS AT EACH STAGE OF THE LANDFILL'S LIFE



### During operation Horizontal LFG collection within the waste mass

Landfill gas (LFG) needs to be effectively extracted from active landfill to comply with air regulation and reach the 75% lifetime gas capture rate recommended for MSW landfill.

Placed directly within the waste mass, **DRAINTUBE 500P LFG4 D25** replaces the traditional horizontal LFG trenches.

It is unrolled directly on the waste and connected to the LFG system conveyance piping using Quick Connect System.

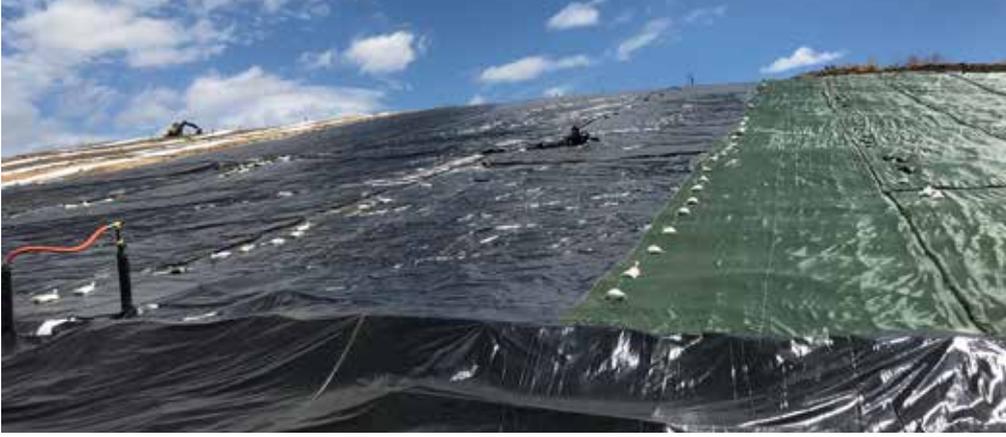


## During operation Temporary cap with LFG collection

Temporary caps are used on open landfill cells to limit rainfall infiltration into the waste and prevent gas from escaping the sides of the landfill.

Installed directly under the geomembrane, **DRAINTUBE 303 LFG1 D25** permits to collect the gas and control the LFG pressure build-up. It is connected to the LFG system conveyance piping using Quick Connect System and a vacuum can be applied.

Flexible and easy to install, **DRAINTUBE 303 LFG1 D25** provides a dense mini-pipe network able to solve any LFG surface emission concerns.



To further limit air intrusion into the gas network, **DRAINTUBE®** geocomposite can be manufactured with an associated coated woven polyethylene geomembrane on its upper side: **DRAINTUBE 600CW LFG2 D25**.

## Closure LFG drainage within the final cover system

The final cover system must include a gas venting layer to provide a conduit for LFG to travel to gas wells. **DRAINTUBE 606 ST2 D25** as gas venting layer improves the collection rate, limits the gas pressure under the geomembrane and protects it from unexpected mechanical damages.

**DRAINTUBE®** can be connected to the LFG network through a regular collector trench or directly to a manifold using Quick Connect System.



## Quick Connect System™



The **DRAINTUBE®** mini-pipes can be positively connected to interceptor drains without trenches with the Quick Connect System.

Quick Connect System creates an airtight connection between the gas piping network and **DRAINTUBE®**.

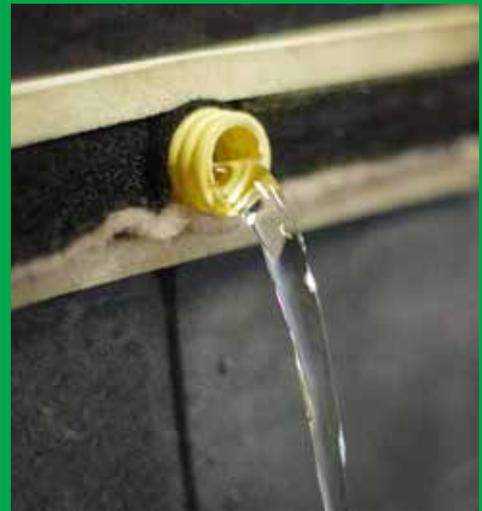
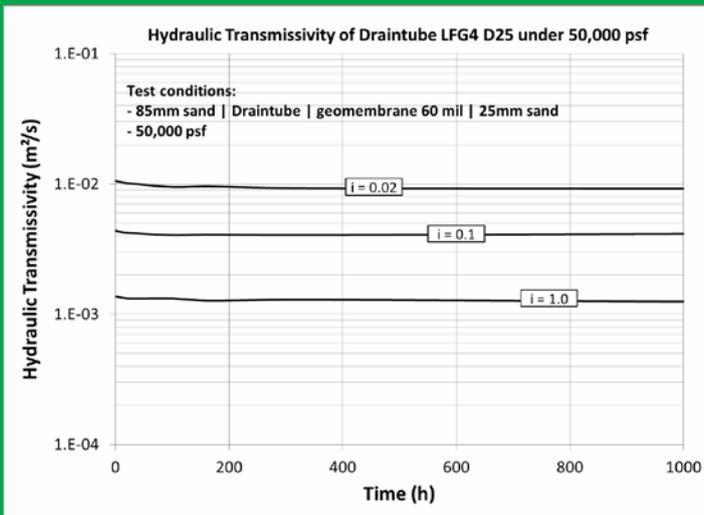


## Design considerations

### Long term behavior

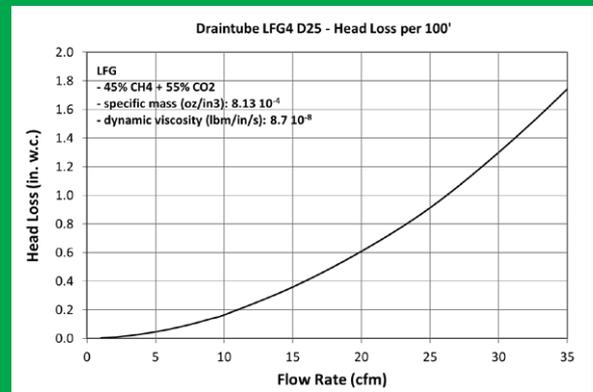
DRAINTUBE® offers better long term performance than any other drainage geocomposite. Its flow capacity remains the same whatever the applied load on it is. This leads to a higher safety factor on performance design.

The improved long term performance is achieved through soil arching over the pipes when confined. Due to its structure, DRAINTUBE® is not susceptible to geotextile intrusion which has been shown to reduce flow in standard geocomposites. This increases options for the types of geotextiles to be used in the geocomposite.



### Head loss calculation

Thanks to Lympha software, the DRAINTUBE® collection flow rate can be determined for each project function of the type of gas, the applied vacuum, the length of drainage, etc.



Produced by



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Global Synthetics  
LEADERS IN GEOSYNTHETICS

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