

PROJECT CASE

Al Ghabawi Landfill final closure
 Al Ghabawi - Amman (Jordanie)

Date

January 2021

Surface Area

170 000 m²

Product(s)

DRAINTUBE FT1 D20

Company

Joint Venture of Christopher D. Constantinidis S.A. (Greece) and Helector S.A. (Greece) - CONHELEC (Jordan)

Project Owner

IDOM-Spain

Project Management

Greater Amman Municipality

Description of the projet

AFITEX Middle East supplied a Drainage Geocomposite DRAINTUBE to secure the drainage of rainfall water on the cover layer of cell 4 of the Ghabawi landfill and more precisely on an area of approximately 170,000 m².

Solution(s)

The DRAINTUBE FT1 D20 geosynthetic was recommended to be used in the final cover of the landfill. Placed on the bentonite geosynthetic (GCL) waterproofing system, The DRAINTUBE FT1 D20, an easy-to-unroll product provides mechanical protection, and Run-off drainage of rainfall water.

This solution is very popular with waste storage center operators because the DRAINTUBE FT is quick to install.

Reduction of 99% of the expected truck traffic.

Environmental-friendly processes



Installation of DRAINTUBE FT on the GCL



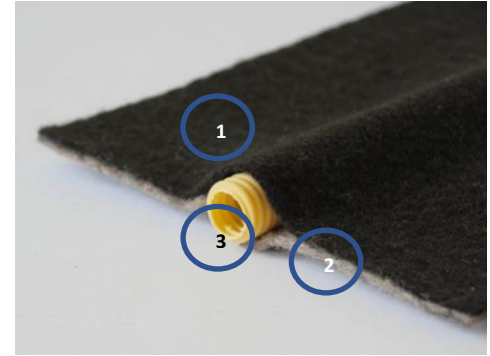
Roll -Up of DRAINTUBE FT on the GCL

Description and function of the Product

The DRAINTUBE FT drainage geocomposite is made up of :

- non-woven needled filter mat (1)
- non-woven needled drainage layer (2)
- Corrugated and perforated polypropylene mini-drains - diameter 20 mm with regular perforations along 2 alternating axes at 90deg to each other.

It replaces the upper protection geotextile, a layer of granular draining materials 0.20 m thick and the filtration geotextile.



DRAINTUBE FT

Implementation

The installation steps :

- A smoothing layer of 0.50 meter was placed on the top layer of daily waste cover
- Installation of bentonite geosynthetic (GCL)
- Installation of the DRAINTUBE FT installed on the GCL to drain the infiltration of rainfall water
- Placement of topsoil on the DRAINTUBE
- Several gas vents have been installed on the top cover

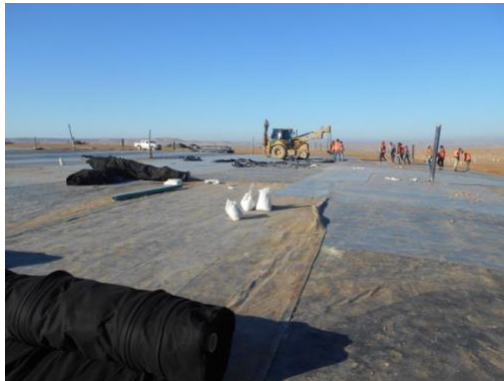


Gaz Vents



Top Soil to cover the
DRAINTUBE FT

Work Progress



Installation of DRAINTUBE FT above GCL for
surface water drainage

Avantages of the proposed solution

- Protection of the sealing system against puncturing
- Efficient drainage of rainfall water filtration
- An economical and beneficial solution for the environment thanks to the replacement of granular layers
- Filtration of the covering soil
- Improving sealing performance by limiting the hydraulic loads
- Stability of the entire final cover

CONTACT

AFITEX MIDDLE EAST

Tel : +961 1 900078

johnny.khamisse@afitex.com