

PROJECT CASE

A22 motorway – Waterproofing layer of the central reservation
Roncq – Tourcoing (59)

Drainage and protection under waterproofing layer

Date
2018

Surface area
43,000 m²

Project Owner
DIR Nord

Product(s)
DRAINTUBE FT

Project manager
SIR Lille

Company
AQUAGEO Etanchéité

Description of the project

Work was carried out on the A22 motorway, in northern France, to make the central reservation waterproof in 3 different sectors, with the creation of treatment and buffer structures.

Issue

The waterproof area of the central reservation is affected by gas leaks. To guarantee the integrity of the geomembrane, a drainage system must be installed under the entire waterproofing layer.

Solutions

The DRAINTUBE FT geocomposite was used to:

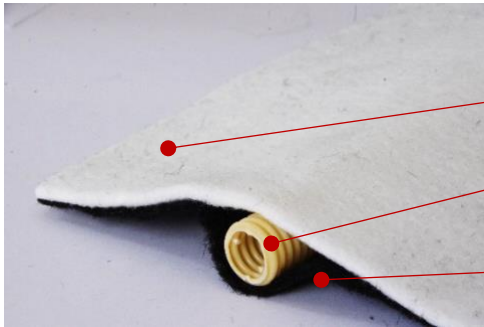
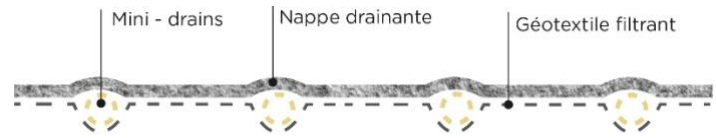
- Provide effective puncture-resistant protection
- Drain gases towards the vents
- Combine these two functions within a single product.

Exhaust vents are connected by a ϕ 25-mm drain. A geotextile was installed on the geomembrane to protect it during backfilling.



Description and purpose of the product

DRAINTUBE FT consists of a non-woven needled drainage layer made of PP, ringed mini-drains made of PP with regular perforations, and a non-woven needled filtering geotextile made of PP. The components are combined by means of needling; mini-drains are inserted during the process.



Drainage layer

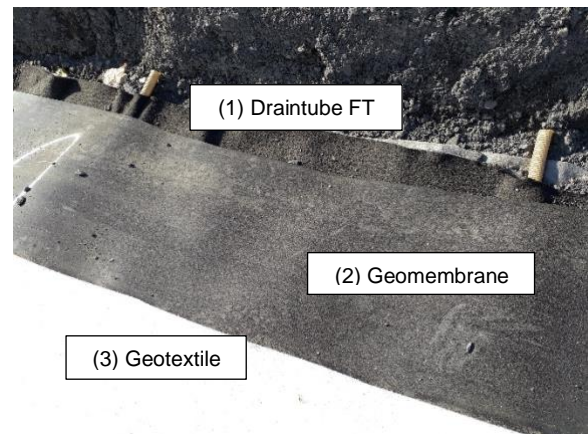
Mini-drain

Filtering geotextile

Work progress



Installation of the $\phi 25$ -mm drain



The 3 layers of the geosynthetic waterproofing and drainage system

Advantages of the proposed solution

- No use of granular materials
- Discharge of gases in contact with the geomembrane
- Mechanical protection and drainage in a single product
- ASQUAL certification

Contacts

Project manager:

Julien BESSON: julien.besson@afitex.com

Design manager:

Emilie TARDIF: emilie.tardif@afitex.com