

PROJECT CASE

A150 motorway
Rouen (76)

Road drainage trench earthwork and waterproof, vegetated culvert

Date

2014/2015

Surface area

18,000 m²

Concession holder

ALBEA

Product(s)

DRAINCOTEX
STABILINER ALVEO

Engineering

INGEROP

Company(ies)

NGE
Razel-Bec

Description of the project

The purpose of the A150 project in Normandy is to complete the motorway link between Rouen and Le Havre, of which already 80 km have already been built. The new 18 km long section, located north of the River Seine, will serve the *Pays de Caux*.

Issue

This motorway runs through an area of very diverse, non-differentiated silt soils: this incoherent detrital rock made of very fine siliceous grains must always be treated before use. Consequently, the lack of granular materials led the various project stakeholders to resort to alternative drainage and waterproofing solutions.

These alternative solutions related to road drainage trench earthwork as well as culverts.

Solution

These geocomposites were used to:

- Do away with the use of granular material
- Do away with the filtering geotextile
- Reuse the excavation material to backfill the trench once the product was installed
- Enjoy a water barrier and earth retention in culverts in a single product.

The road drainage trench was opened with a trencher and the product was installed therein. The collector drain was inserted into the sleeve of the DRAINCOTEX first using a wire-pulling system. For culverts, STABILINER ALVEO was simply unrolled with a lifting beam.



Description and purpose of the products

DRAINCOTEX consists of a drainage layer coupled with two filtering geotextiles by needling, as well as a welded filter sleeve intended to host the collector drain. For this project, DRAINCOTEX must consist of a 0.90 m high road drainage trench and a sleeve capable of hosting a drain with a 160 mm diameter.

STABILINER ALVEO consists of a thermoformed alveolar geotextile and a HDPE geomembrane. The two components are coupled together by lamination.



Work progress



Stabiliner Alveo and Draincotex overview



Stabiliner Alveo backfilling (overlapping installation)

Advantages of the proposed solution

- No use of granular materials
- No use of geotextile filter
- Reuse of excavation materials
- Water barrier and revegetation in culverts in a single product
- IDRRIM technical certificate for DRAINCOTEX

Contacts

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