

PROJECT CASE

Development of controlled flooding field structures Renty (62)

Drainage under and within the body of the dike

Date

2018

Surface area

7,800 m² (under the dike)
2,160 m² (body of the dike)

Project Owner

SMAGEAa (Public-Private Entity for the Development and Management of Aa Waters)

Product(s)

SOMTUBE FTF
DRAINATEX

Project manager

ANTEA

Company(ies)

Colas Est

Description of the project

As a result of the major flood of the River Aa in 2002 and the frequency of more recent floods, a programme was established to alleviate the effects of these floods. It consists of developing flood storage areas, i.e. natural areas intended to receive flood waters.

Issue

The functionality of flood storage areas is entirely dependent on the resilience of "barrier" dikes. Their downstream part, in contact with flood waters, must not be destabilised by the presence of water, otherwise the flood may spread beyond the area provided for this purpose. Therefore, it is important to drain the base (horizontal drainage) as well as the body of the dike (vertical drainage).

Solution

The SOMTUBE FTF and DRAINATEX geocomposites were used to:

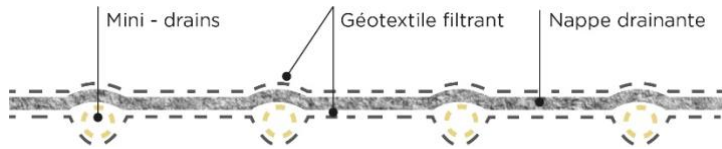
- Do away with the use of granular material
- Do away with the filtering geotextile
- Guarantee the sustainability of the dike.

SOMTUBE FTF was specifically designed based on the geometry and constraints of the project. Placed horizontally at the base of the dike, it is connected to drainage collection trenches. Placed vertically in the body of the dike, DRAINATEX drains run-off water and guides it towards the SOMTUBE FTF to which it is connected through the bottom by a simple overlap.



Description and purpose of the products

SOMTUBE FTF consists of a non-woven needled filtering geotextile made of PP, 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. Geotextile components are coupled together by needling; mini-drains are inserted during needling.



DRAINATEX consists of a drainage layer coupled with two filtering geotextiles by needling.



Work progress



Connection to the collector trench



Vertical installation of DRAINATEX ("concertina-like")

Advantages of the proposed solution

- No use of granular materials
- No use of geotextile filter
- Drainage of the base and body of the dike
- IDRRIM technical certificate for SOMTUBE FTF

Contacts

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