

Project reference

Sustainable Drainage System with Crates for a Car Park

Place : Nantes - France

Application: Infiltration and peak limitation runoff water tank made with underground crates

Designer: BCF Groupe Architectes

Contractor: Landais TP

Solution: TenCate GeoClean® Origin

Function: Clean the collected runoff water from the hydrocarbons

Context: The creation of a new commercial area with car parks, roads and restaurants requires an appropriate stormwater management. The low permeability subsoil allows a limited amount of direct infiltration.

Design: Runoff water for the impervious pavement polluted by hydrocarbon leakage from the traffic is collected by several gullies and directed by a network of pipes to a buried retention basin of about 30 m x 6 m x 1 m. This basin consists of an Ultra-Light Alveolar Structure made with crates bathed at the bottom and on its sides into a body of draining gravels. The TenCate GeoClean® Origin oil-biodegrading aquatextile is interposed between the elements of crates and the gravel. A geotextile TenCate bidim® S41 for soil filtration is laid between the gravel and the subsoil.

Runoff that enters the retention tank through two pipes percolates at the bottom and at the sides through the aquatextile which traps the hydrocarbons with its oleophilic continuous filaments and returns into the gravel the clean treated water with a residual hydrocarbon content of less than 1 mg/l for direct infiltration. If the water level into the tank basin is rising, an outlet collector regulates the water volume and directs the clean water to the rainwater collective network.

Thanks to the natural growth activator diffused by the blue continuous filaments, the micro-organisms present in the soil and in the water will rapidly colonize the aquatextile to degrade the retained hydrocarbons and maintain the retention capacity of the aquatextile on the long-term.

TenCate GeoClean® is an **eco-friendly** and **sustainable** solution for **cleaning oil-polluted runoff water**.

TENCATE
GeoClean®

TenCate GeoClean®
houses a natural ecosystem

It is a bicolour two-layer aquatextile with a unique structure that naturally traps and biodegrades oil from runoff water, to protect aquifers and ensure that only clean water infiltrates the natural soil.

Aquatextile

A textile for managing water quality in the soil.

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For more information on projects, installation of the aquatextile and the savings, please contact us:

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Cleaning Water.
Naturally

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