



Sudstex Permafilter[®] Geotextile

What is it and what does it do? **It..... Intercepts, Retains, Treats**

SEL Sudstex Permafilter[®] geotextile is a non-woven, dimpled, needle-punched geotextile that has been specifically designed for hydrocarbon pollution treatment in civil engineering applications (such as filtration, separation, drainage, protection and reinforcement). Hydrocarbons are trapped by the geotextile whereas clean water is allowed to pass through. The entrapped hydrocarbons can then be biodegraded by naturally occurring micro-organisms providing a self-cleansing mechanism. The SEL Sudstex Permafilter[®] geotextile can be used stand-alone to provide treatment beneath any hardened surface, or as part of a treatment train within SUDS such as the SEL Source Control System or permeable pavements.

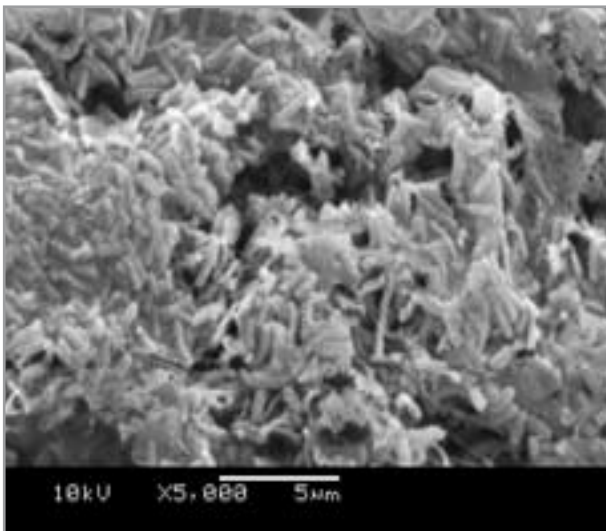


Why do you need it?

Urbanisation and land development are commonly associated with significant negative impacts on the environment (i.e. increasing water volumes and pollutant loads). In particular, diffuse pollution mobilised from impervious surfaces is recognised as a major cause of decline in the quality of

controlled waters. The pollutants are specific to the land use and can include substances from atmospheric deposition, maintenance and deposits from exhausts and vehicle oil leaks.

General perception of pavements is that they are "watertight" structures; however, the majority of paved surfaces allow the ingress of water due to engineered water passages (e.g. gaps, expansion joints etc) or moreover pavement fatigue (i.e. cracks and fissures) all of which contribute to accumulation of diffuse pollution through contaminant transportation.





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How does it work?

SEL Sudstex Permafilter[®] geotextile is a dimpled geotextile consisting of a proprietary blend of polyester fibres that incorporate oleophobic/hydrophilic (oil repellent/affinity for water) properties to achieve superior oil retention. The geotextile is capable of retaining oil contamination ranging from daily car drip losses up to catastrophic spillages - i.e. originating from ruptured engine sumps - up to a maximum of 6 litres of oil per 10m² of geotextile. The entrapped hydrocarbons are biodegraded by naturally occurring micro-organisms providing a self-cleansing mechanism. Effluent discharge at maximum oil loading is less than 10 parts per million.

Oleophobic,

(from the Greek (oleo) "oil" and (phobos) "fear").

Oleophobic refers to the physical property of a molecule that is repelled from oil. Water molecules are oleophobic.

Hydrophilic,

(from the Greek (hydros) "water" and (philia) "friendship,").

Substances that have an affinity for water.

SEL Sudstex Permafilter[®] Geotextile Performance Data

The SEL Sudstex Permafilter[®] Geotextile demonstrated successful retention of up to 6 litres of oil per 10m².

The results of effluent monitoring showed a maximum discharge of 4.5ppm during the first flush, reducing to an average concentration of 1.5ppm during consecutive rain events.

What would you use it for?

The range of applications for the SEL Sudstex Permafilter[®] geotextile is extensive. It is ideal for traditional geotextile situations where enhanced hydrocarbon treatment is desirable. Furthermore, it is most appropriate in many "new" applications where the superior hydrocarbon retention is a specific requirement e.g. SUDS, Highway edge drains.

Examples of applications which would benefit from the use of SEL Sudstex Permafilter[®] geotextile include:

- Impervious pavements, to prevent oil contamination through cracks and fissures
- Infiltration systems
- Permeable pavements
- Pollution barriers
- Attenuation systems
- Swales
- Verges
- Retention/Detention basins
- Grassed/Gravel car parks
- Highway edge drains
- Filter drains
- Soakaways
- Storage tanks
- Podium decks (trafficked)
- Contaminated land
- Railways
- Airports

Also from Althon



Althon SUDS The SEL Source Control System



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