

## SILT CONTROL

### SILT CONTROL SOLUTIONS FOR CONSTRUCTION ZONES

#### ADVANTAGES:

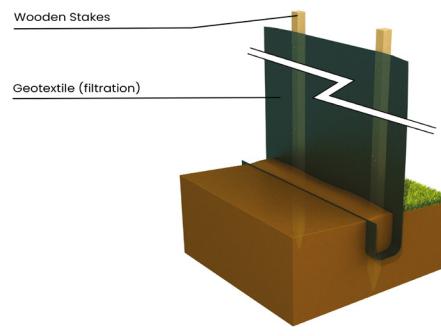
Efficient, simple and easy-to-install solutions;

Several solutions adapted to the conditions specific to your work site;

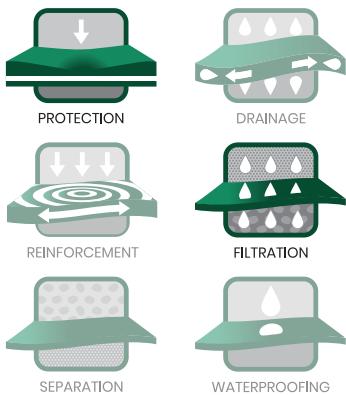
These solutions can be combined with natural mitigation methods in order to minimize the impact of erosion.



Civil engineering projects generally involve soil reconditioning that leaves the soil unstable; 200 to 400 times more vulnerable to erosion than soil that has not been reconditioned. Erosion leads to the migration of soil particles toward drainage systems and natural bodies of water, creating additional strains on ecosystems and municipal infrastructures. In recent years, regulations have been established requiring the use of mitigation measures to reduce these negative impacts. Alkegen proposes solutions to this challenge with its series of silt control solutions.



#### FUNCTIONS



#### SECTORS

- Municipal and Landscape Architecture
- Roads and Transportation
- Natural Resources and Energy

#### SILT CONTROL SOLUTIONS:

Alkegen offers a variety of geosynthetic solutions to control erosion and silt for construction sites:

- Woven and nonwoven silt fences;
- Settling bags;
- Sediment traps;
- Natural silt barriers.

These geosynthetic solutions can be used in addition to conventional methods such as:

- Settling ponds;
- Use of rock in trenches and temporary dikes;
- Diverting preferential drainage channels;
- Conservation and stabilization of existing vegetation.



## IMPACT OF SILT ON THE ENVIRONMENT AND INFRASTRUCTURES:

- Economic impact: when silt accumulates in drainage systems, there is increased risk of the systems backing up and pumping equipment being damaged, as well as other costly cleanup and replacement issues.
- Environmental impact: silt in bodies of water has an impact on the quality of aquatic habitats, reducing the ability of fish to feed themselves and reproduce. What's more, toxic substances such as hydrocarbons, heavy metals and chemical products can be carried with silt and find themselves in municipal water systems.

## SILT CONTROL, TO REDUCE THE IMPACT OF THE MAIN CAUSES OF EROSION

Soil erosion in construction sites resulting in the presence of silt in runoff water varies depending on the work site and is influenced by several factors. The Revised Universal Soil Loss Equation (RUSLE) was developed by the United States Department of Agriculture and is now used by many specialists in this field allowing them to predict the degree of erosion based on several of the key factors that influence erosion:

**RUSLE equation:  $A = R * K * LS * C * P$**

**A:** Estimate of the annual quantity of soil eroded per unit of surface area

**R:** Factor representing the effect of precipitation and runoff (quantity and intensity of rain)

**K:** Factor representing soil erodibility (tendency of soil particles to break away and runoff rate)

**LS:** Factor representing the impact of the topography of the terrain (length "L" and angle "S" of the incline)

**C:** Factor representing the vegetation cover (presence of trees and plants, percentage of vegetation cover and the soil roughness)

**P:** Factor representing the impact of work methods (good work practices, mitigation methods and techniques used)

Since it is impossible to completely eliminate erosion, by using this equation, regulatory bodies must determine the acceptable quantity of eroded soil depending on the tolerance threshold for the area affected by the work.

## PRODUCTS TABLE

Silt Fences	Sediment Traps	Settling Bags	Natural Silt Barriers
			

### WANT TO LEARN MORE?

Feel free to contact one of our representatives to discuss your project. **1 800 463-8929 | [texel.ca](http://texel.ca)**

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