

# PRODUCT CUT SHEET



## F SERIES

FILTRATION GEOTEXTILE FOR FINE AND CLAY SOILS

### + ADVANTAGES:

Excellent retention of fine particles even under high water flow;

Consistency of pore openings even under severe constraints;

Broad line to meet filtration needs and worksite constraints;

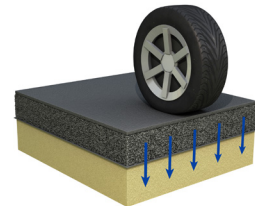
Optimal permeability.



It is essential to be able to control fine particles in the presence of hydraulic (groundwater) and mechanical (vehicle movements) constraints in order to preserve a structure's stability. F Series woven and nonwoven geotextiles boast optimized filter pores for filtering in fine and clay soils. These geotextiles are vital in order to minimize loose particle washout and channel liquids towards the drainage system. The extensive range of geotextiles in the F series are designed to adjust to specific soil conditions and to adapt to mechanical constraints at the site.



WITHOUT GEOTEXTILE



WITH GEOTEXTILE

### FUNCTIONS



PROTECTION



DRAINAGE



REINFORCEMENT



FILTRATION



SEPARATION



WATERPROOFING

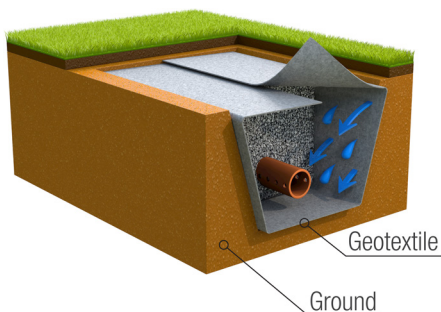
### SECTORS

- ✓ Municipal and Landscape Architecture
- ✓ Roads and Transportation
- ✓ Industrial and Waste Management

### A VERSATILE SOLUTION FOR FILTRATION APPLICATIONS:

- Roads;
- French drains;
- Road drainage screens;
- Landfill sites;
- Banks and cofferdams;
- Drying beds

# F SERIES



## FILTRATION OPTIMIZATION REQUIRES CUSTOM DIMENSIONING

The filtration function of the geotextile is summed up by its capacity to let the liquid through while retaining soil particles. This function requires that the product be optimized according to the application:

**Filter pore:** the filter must have pore openings that are small enough to trap soil particles.

**Normal permeability:** the filter must be sufficiently permeable to allow liquid to drain.

## THE F SERIES, HYDRAULIC PROPERTIES MEETING INDUSTRY STANDARDS

The hydraulic properties of pore openings in geotextiles are defined according to 2 standards recognized by the industry, namely FOS and AOS. The F Series uses the FOS method because it better characterizes actual soil conditions.

**FOS METHOD** - Filtration Opening Size The filter pore size is determined by sifting glass beads under hydrodynamic conditions. The appropriate filter pore size is determined based on bead size once 95% (in weight) of the glass beads have passed through the geotextile. The hydrodynamic condition simulates particle migration in the presence of water.

**AOS METHOD** - Apparent Opening Size The apparent opening is determined by dry screening set sizes of glass beads. The fraction to us is determined once only 5% of the bead weight has passed through the screen. The AOS is determined according to the corresponding U.S. standard screen number. Although there are similarities between the FOS and AOS methods, no correlation is possible between the results of the two. The FOS method was adopted in Canada in 1990 while the AOS method was adopted in the United States in 1993.

SPECIFICATIONS	Description	Type of product	Format
	Texel F-200, Texel F-300, Texel F-500, Texel F-909 / Texel SX-104F, Texel SX-111F, Texel SX-117F	Needle punched nonwoven geotextile / Woven geotextile	Roll

## F SERIES, PROPERTIES WHICH MAKE A DIFFERENCE

Properties Measured		Test Method	Unit	Interpretation
Mechanical	Breaking elongation	ASTM D4632	%	Quantifies the elongation the product can bear before breaking.
Hydraulic	Permeability	ASTM D4491	cm/s	Measures water flow through the geotextile in the normal direction under predetermined hydraulic loads.
	Permittivity	ASTM D4491	s <sup>-1</sup>	Indicates the capacity of the geotextile filter to let water through perpendicularly to its plane.
	Filtration opening size FOS	CGSB 148.1-10	µm	Indicates the size of soil particles which can pass through the geotextile under hydrodynamic conditions.

This table presents a summary of specifications. We invite you to consult updated information sheets and detailed technical specifications on our website at [www.texel.ca](http://www.texel.ca).

### NEED TO KNOW MORE?

Call our representatives for your projects! 1 800 463-8929 | [texel.ca](http://texel.ca)

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