

SILTFENCE

SEDIMENT & EROSION CONTYROL

One of the biggest sources of water pollution in New Zealand is sediment which contaminates our streams, lakes and coastal waters.

In order to ensure sedimentation control during construction and to comply with the Resource Management Act and the District Plan it is mandatory to prevent runoff and sediment discharging off site or into the stormwater system.

This is achieved in part by installing silt fence barriers around the perimeter of the earthworks. A silt fence needs to have an adequately high UV resistance for the term required, plus it must meet specific filtration properties. Syntex silt fence is available in two styles depending upon the performance requirements of the project.

■ Silt Fence Type 1 (woven)

A woven product manufactured with slit film yarns. Identified by a distinctive single orange marker line which runs along the top and bottom of the roll, 150 mm from the edge.

SYNTEX SILTFENCE PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	UNITS	Type 1	Type 2
Mechanical				
Grab Tensile Strength	ASTM D 4632	N	552 x 454	779 x 645
Grab Elongation	ASTM D 4632	%	16 x 20	20 x 20
Puncture Strength	ASTM D 4833	N	267	556
Mullens Burst	ASTM D 3786	kPa	2068	2929
Trapezoidal Tear	ASTM D 4533	N	289 x 289	423
Hydraulic				
AOS	ASTM D 4751	mm	0.5	0.425
Permittivity	ASTM D 4491	sec ⁻¹	0.1	1.30
Water Flow Rate	ASTM D 4491	l/min/ m ²	407.4	4074
Endurance				
UV Resistance (500 hrs)	ASTM D 4355	% retained	80	95
Standard packaging				
Roll Width	Measured	m	1.2	0.915
Roll Length	Measured	m	100	100



Syntex silt fence

Syntex silt fence

■ Silt Fence Type 2 (monofilament)

A high flow rate high performance silt fence. It is an engineered premium grade manufactured monofilament to offer optimum tensile, flow and filtration characteristics. Identified by distinctive twin orange marker lines which run along the top and bottom of the roll. These lines are 150 mm from the edge.

Installation

Installation should be in accordance with ASTM D 6462, Standard Practice for Silt Fence Installation, or local council specifications. The sediment can be contained and channelled into lined holding ponds. Install using a silt fence trenching machine, if available. The marker lines are 150 mm from the edge and are designed as guides for proper burial depth during trenching process. In absence of the proper machinery several other methods are used, as follows.

► Method 1

This procedure is primarily based upon Auckland Regional Council Sediment Control Guidelines (TP90): A trench is constructed, to a width of 100 mm x 200 mm depth, minimum. Proper installation requires the Silt Fence be anchored in the trench preferably with the fabric covering the bottom of the trench. Backfill using earth moving equipment. Stakes should be either tanalised timber of 50 mm square or steel waratahs of 1.5 m length. Drive the stakes into the ground to a minimum depth of 400 mm, or 600 mm on a slope of 3:1 or greater. Spacing of stakes or waratahs is at a minimum distance of 2 m apart. Always install the silt fence with the stakes behind the flow. Support fence is recommended to be installed along the entire length along the upslope side of the fence from the top to the bottom of the silt fence. A support wire (2.5 mm galvanised) is attached along the top of the fence.

► Method 2

A faster (less effective) method is to drive the stakes into the ground and fasten the silt fence with the guideline at ground level allowing a 200 mm flap which is covered with earth. As this method may not totally prevent sediment flow under the fence it may not be allowed under the District Plan, therefore check for compliance.

Disclaimer

The information presented herein, while not guaranteed, is to the best of our knowledge true and accurate.

While every effort has been made to provide accurate and reliable information, it is up to the user of this brochure to verify all information, including designs it might be based upon, with an independent source. Application of this data must be made on the basis of responsible professional judgement.

Except when agreed to in working conditions of use, no warranty expressed or implied is made regarding the performance of any product, since the manner of use and handling is beyond our control.