

Part 1 General

1.1 MATERIALS

- .1 Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

<i>Physical property</i>	<i>Test</i>	<i>Requirements</i>
Filtering Efficiency	ASTM 5141	75% (minimum)
Tensile Strength at 20% (max.) Elongation	VTM-52	Extra Strength- 50 lbs./linear inch (minimum) Standard Strength- 30 lbs./linear inch (minimum)
Flow Rate	ASTM 5141	0.2 gal./sq. ft./min. (minimum)
Ultraviolet Radiation	ASTM-G-26	90% (minimum)

- .2 Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a maximum usable construction life.
- .3 If wooden stakes are utilized for silt fence construction, they must have a diameter of 50mm when oak is used and 100 mm when pine is used. Wooden stakes must have a minimum length of 1500mm.
- .4 If steel posts (standard “U” or “T” section) are utilized for silt fence construction, they must have a minimum weight of 1.33 pounds per linear foot and shall have a minimum length of 1500mm.
- .5 Wire fence reinforcement for silt fences using standard-strength filter cloth shall be a minimum of 14 gauge and shall have a maximum mesh spacing of 150mm.

Part 2 Execution

2.1 APPLICATION

- .1 The height of a silt fence shall be a minimum of 400 mm above the original ground surface and shall not exceed 850mm above ground elevation.
- .2 The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter cloth shall be spliced together only at a support post, with a minimum 150mm overlap, and securely sealed.
- .3 The trench shall be excavated approximately 200mm wide and 200mm deep on the upslope side of the proposed location of the measure.

- .4 When wire support is used, standard-strength filter cloth may be used. Posts for this type of installation shall be placed a maximum of 3000mm apart. The wire mesh fence must be fastened securely to the upslope side of the posts using heavy duty wire staples at least one inch long, tie wires or hog rings. The wire shall extend into the trench a minimum of two inches and shall not extend more than 850mm above the original ground surface. The standard-strength fabric shall be stapled or wired to the wire fence, and 200mm of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.
- .5 When wire support is not used, extra-strength filter cloth shall be used. Posts for this type of fabric shall be placed a maximum of 1800mm apart. The filter fabric shall be fastened securely to the upslope using one inch long (minimum) heavy-duty wire staples or tie wires and eight inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees. This method of installation has been found to be more commonplace than #4.
- .6 If a silt fence is to be constructed across a ditch line or swale, the measure must be of sufficient length to eliminate end flow, and the plan configuration shall resemble an arc or horseshoe with the ends oriented upslope. Extra-strength filter fabric shall be used for this application with a maximum 900mm spacing of posts.
- .7 The 200mm by 200mm trench shall be backfilled and the soil compacted over the filter fabric.

END OF SECTION