



Materials Specification For: Silt Fence Barrier

1. Silt fence fabric should be woven polyester/polypropylene geotextile fabric with the following specifications.

Property	Standard	Test Method
Grab Tensile Strength	330 N	ASTM D 4632
Apparent Opening Size	850 microns max	ASTM D 4751
Elongation	15% max	ASTM D 4632
Mullen Burst Strength	1000 kPa	ASTM D 3786

2. Post/Stakes

The stakes shall be of sufficient strength to satisfy silt fence barrier performance and maintenance requirements. The stakes shall be a minimum of 1.2 meters in length with a maximum spacing of 2.5 meters between stakes.

3. Approvals

This item must be approved as identified on the Department's Products Standards List or be approved for use by the Department to qualify for purchase.


4. Construction Notes

Silt fences shall be installed on the contour and constructed so the flow and sediment passage cannot pass the ends. A trench measuring approximately 200 mm wide by 200 mm deep shall be excavated along the entire length of the upstream side of the line of stakes. The geotextile shall extend into the trench a minimum of 300 mm.

The stakes should be wood and be driven into the ground 0.6 to 0.9 meter. The fence shall be installed without sags and a overlap of 450 mm is required to extend the length. The trench shall be backfilled to existing grade so as to hold the base of the geotextile firmly in place. The minimum height shall be 600 mm above the ground surface.

5. Maintenance

All silt fences shall be inspected immediately after each run-off event and at least daily during prolonged rainfall. The silt fence barriers shall be maintained in place, without gaps, so as to prevent sediment passage throughout or under the barrier. Silt fence barriers shall be vertical without tears and without sagging.

 <p>Manitoba Infrastructure and Transportation MATERIALS ENGINEERING BRANCH</p>	Specification No: APL152-1
	<u>Effective Date</u> Current: June 2010 Previous: n/a
	Page 2 of 2
Materials Specification For: Silt Fence Barrier	

6. Sediment Removal

Accumulated sediment shall be removed in a manner that avoids escape to the downstream side of the barriers and avoids damage to them. Sediment shall be removed to the level of the existing grade at the time of the barrier installation and shall conform to the following:

- a) Accumulated sediment shall be removed when it reaches a depth of one-half the effective height of the silt fence barrier.
- b) Accumulated sediment shall be removed as necessary to perform maintenance repairs.
- c) Accumulated sediment shall be removed prior to the removal of the silt fence.

Accumulated sediment shall be managed as common excavation material, as specified elsewhere in the contract.

7. Silt Fence Barrier Removal

Silt fence barriers shall be removed when, in the opinion of the engineer, the measure is no longer required and in this manner:

- a) Avoids entry of equipment, other than hand held equipment to any water course.
- b) Prevents release of sediment and debris to any water course.

The original vegetation cover disturbed by removal or backfilling of silt fence barriers and removal of accumulated sediment shall be returned to original grade, dressed with topsoil and seeded.

Approved:	<i>Original signed by:</i> <hr/> Said Kass, P. Eng. Director, Materials Engineering Branch
-----------	--