

28200200 FILTER FABRIC (LCDOT) For use on all LCDOT projects with gabions.
Delete this note from the Contract Specifications.

Effective: January 1, 2007
Revised: May 20, 2014

Description: This work shall consist of furnishing and installing geotechnical filter fabric in conjunction with gabions on a prepared subgrade or embankment foundations. The work shall also include all work necessary to prepare the subgrade beneath the fabric.

Materials: The material shall meet the requirements of Article 1080.03 of the “Standard Specifications” and the following:

The filter fabric material shall consist of non-woven filaments formed from plastic yarn of a long – chain synthetic polymer composed of at least 85 percent by weight polyolefins, or polyesters, and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistant to deterioration due to ultra violet light and heat exposure. After forming, the fabric shall be processed so that the filaments retain their relative positions with respect to each other. The fabric shall be free of defects or flaws which significantly affect its physical and/or filtering properties.

The texture of the fabric shall be such that the gabion and foundation will remain in an equilibrium state and not slip or slide. The filter fabric shall be rot proof, mildew proof, insect resistant and have a high dimensional stability when wet. The fabric shall also have good soil filtration characteristics, high resistance to tear propagation in all directions, and meet the following minimum conditions and ASTM tests:

<i>Weight of Fabric (oz/sq yd) ASTM D 3776 (Mod.)</i>	<i>6.0</i>
<i>Burst strength (psi) ASTM D 3786 (Note 1)</i>	<i>280 MARV</i>
<i>Trapezoidal Tear Strength (lbs) ASTM D 1117 (Note 2)</i>	<i>60 MARV</i>
<i>Grab tensile Strength (lbs) ASTM D 4632 (Note 2)</i>	<i>160 MARV</i>
<i>Grab tensile Elongation (%) ASTM D 4632 (Note 2)</i>	<i>50 MARV</i>
<i>Apparent Opening size ASTM D 4751 (US Sieve)</i>	<i>70 MARV</i>
<i>Permeability (cm/sec) ASTM D 4491</i>	<i>0.24 MARV</i>

Note 1: Manufacturer's certificate of fabric to meet requirements.

Note 2: Test sample shall be tested wet.

General: The bottom and back of the gabions (and such other areas as may be indicated on the plans) shall be lined with filter fabric. The work shall be constructed according to Section 282 of the “Standard Specifications”

Method of Measurement: The filter fabric will be measured in place and the area computed in square yards. The buried edges of the fabric will not be measured for payment and the overlap joints and seams will be measured as a single layer of material.

Basis of Payment: This work shall be paid for at the contract unit price per square yard of FILTER FABRIC. *The unit price shall include all equipment, materials and labor required to furnish and install the filter fabric.*