

COMPOST FILTER SOCK

sf

CODE 805



(Source: Rich Nowack)

DEFINITION

A confined, three dimensional, tubular compost filter berm.

PURPOSE

The purpose of this practice is to help sediment deposition by ponding and filtering runoff, or to reduce velocities in drainage conveyances or on slopes.

CONDITIONS WHERE PRACTICE APPLIES

As perimeter barrier

As a slope check

As a check dam or ditch check

On frozen ground, hard surfaces, in rocky ground or near tree roots where installation of trenched in or slit in products is difficult or impossible.

CRITERIA

Compost Filter Sock should be used as part of a treatment train approach to Erosion and Sediment Control and Stormwater Pollution Prevention, and should not be a stand alone practice.

The compost material shall be in accordance with Material Specification 805 – Compost, Coarse Compost.

Compost Filter Socks can be installed year round. Trenching in is not required. When used as a perimeter barrier, the 12" diameter Compost Filter Sock shall be placed on contour with upturned ends.

When used as a level spreader or slope check, placement of the Compost Filter Sock on contour is mandatory. Runoff flowing over the Compost Filter Sock in this application indicates that the amount of run is too great and the sock diameter is to be increased or the amount of runoff directed to the practice reduced.

When used as a ditch check or check dam, runoff must flow through or over, and not around, the Compost Filter Sock. See Practice Standard 905 Rock Check Dam and/or Practice Standard 814 Ditch Check (Manufactured). The Compost Filter Sock shall to manage flows from a 10 year storm event.

Compost Filter Sock mesh tubes shall be a minimum of 8 inches in diameter.

When used as inlet protection, the inlet itself must be in a natural low point or a

created ponding area to avoid direct runoff to successive lower inlets where the sag inlet will be overwhelmed.

On frozen ground, hard surfaces or in rocky ground, placement on contour is unlikely, so filtering and ponding must be encouraged by occasionally interrupting the predominant line of the Compost Filter Sock with safe berms or turned ends.

When placed on non-frozen ground, compost Filter Socks must be staked to the ground with nominal 2" x 2" stakes, embedded 12" into the ground on 10' centers. On frozen or rocky ground or on hard surfaces, the Compost Filter Sock shall be held in place with suitable weights or braces to prevent movement.

Compost Filter Socks shall be in firm contact with the soil. Under no circumstance should they be allowed to bridge over surface irregularities. Remove, or grade out, the ground surface in the vicinity of the Compost Filter Sock placement to preclude any flow under the device.

If Compost Filter Socks are spliced, a minimum overlap equal to the diameter of the product shall be used.

CONSIDERATIONS

Compost Filter Sock serves as a sediment control practice that has soil building benefits when the sock is cut and compost is spread as mulch or incorporated into the native soils. In this capacity, compost can:

1. Improve topsoil structure and cohesion;
2. Improve infiltration capacity;
3. Reduce invasive plant establishment; and

4. Bind pollutants such as hydrocarbons, phosphorous and heavy metals in runoff.

Effluent from the Compost Filter Sock may be slightly colored and is not detrimental to soils, but it may stain concrete surfaces.

The heat generated in the composting process kills weed seeds and other undesirables in the compost raw material input stream yielding a clean organic soil amendment. Restrict application of fertilizers when the compost in the filter sock is spread onsite after sediment control functions expire.

The compost itself can be left on site, spread on the surface and will help to amend the already stabilized topsoil on site, creating an improved soil structure.

In areas where the receiving waters contain high nutrient levels, the site operator should choose a mature, stable compost that is compatible with the nutrient and pH requirements of the selected vegetation.

PLANS AND SPECIFICATIONS

Plans and specifications for installing Compost Filter Socks shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Locations and uses of Compost Filter Sock practices;
2. Whether the placement is on contour or across contours;
3. Coarse Compost specifications;
4. Mesh Tube Specifications; and
5. Installation directions;

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

The Compost Filter Sock practice shall be constructed in a manner meeting the requirements of standard drawings for the different types of uses being specified.

Mesh shall be a high density polyethylene (HDPE) expandable, tubular, photodegradable, 3 mil to 5 mil, 3/8 inch knitted mesh netting fabric sock of 12 inches and 18 inches diameters.

IUM...

Standard drawing..... may be used as the plan sheet.

OPERATION AND MAINTENANCE

1. Inspect every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.
2. Inspect every 7 days and after every 1/2 inch rainfall or snow event.
3. Accumulated sediment shall be removed when the capacity for sediment storage has been reduced by half. Sediment that has been removed shall be placed such that it will not reenter the storm drain system.
4. The Contractor shall functionally maintain the Compost Filter Sock, whenever tears, splits, unraveling or compressed compost is apparent, immediately repair damage and add supplemental practices as needed.
5. Remove debris accumulated on the Compost Filter Sock.
6. Compost Filter Sock mesh tubes and stakes practices shall be removed upon final vegetation stabilization and

the compost spread over the stabilized topsoil.

REFERENCES

The Sustainable Site by Faucette, et al, 2011. Forester Press

Compost Filter Sock Fact Sheet, USEPA Stormwater Menu of BMPs, <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=120&minmeasure=4>

Iowa Construction Site Erosion Control Manual. http://www.ctre.iastate.edu/erosion/manuals/const_erosion.pdf

December, 2011 urbst805.doc