

ITEM 209.2102 24 - FLOC LOG 700 SERIES

DESCRIPTION

This work shall consist of applying a polyacrylamide product (PAM) contained in a Floc Log block for use in removing suspended particles and turbidity from disturbed land areas as a means of sediment control. Each block shall be formulated for the soil and water chemistry of the geographical area where placement and usage is intended and shall be used at an application rate of one block per 225 to 265 lpm discharge flow. The number of blocks used at a location shall be dependent on the discharge flow rate. The polyacrylamide product (PAM) contained in a Floc Log block must be approved, prior to use, by the Department of Environmental Conservation.

MATERIALS

Floc Log 700 Series shall be supplied by:

Applied Polymer Systems, Inc.
519 Industrial Drive
Woodstock, GA
30189
Ph: (687)494-5998

- 1. Site Determination:** The product to be used shall be specific to the area to be treated as identified in the Contract documents.

Where geographical areas have not previously been tested, site-specific assessment (soil and water testing) shall be conducted, by the manufacturer, to select application rate and maintenance procedure tailored to site-specific soil characteristics, topography, and hydrology. A copy of the test result determination, in either case, shall be provided to the Engineer so that he/she can submit the data to Department of Environmental Conservation. No work shall begin without a written authorization from the Engineer.

- 2. Chemical Safety:** All polyacrylamide used shall consist of NSF Standard 60 Chemicals and shall have less than 0.05% acrylamide monomer by weight, as established by the Food and Drug Administration and the Environmental protection Agency.

Monomer Acrylamides, emulsion-based or any polymer that is pre-mixed with a substance other than pure water, and cationic forms other than an anionic polymer are not acceptable. A manufacturer's MSDS sheet and toxicity report shall be furnished to the Engineer.

The polyacrylamide and polyacrylamide mixtures shall be noncombustible. The polyacrylamide shall have a charge density of 10% to 55%, by weight. The polyacrylamide shall have a molecular weight of 6 to 24 Mg/mole.

CONSTRUCTION DETAILS

- 1. Polymer Selection:** The product to be used shall be specific to the area to be treated and must be approved by Department of Environmental Conservation. Soil lithology and water chemistries require a match in polymers to achieve the maximum benefit. The contractor and/or the manufacturer's representatives shall employ simple bench-

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testing procedures to determine the appropriate polyacrylamide to be used. Results of the tests shall be provided to the Engineer.

- 2. Placement Procedure:** The Floc Log block shall be placed directly into the intended storm water path. To enhance particle settlement the stream of storm water runoff shall be directed to a filtration or trapping device. The filtration or trapping device may consist of check dams, particle curtains, baffle grids, filter bladders, settling basins or other similar devices which shall be paid for under their respective item. The flow time of the storm water runoff from the Floc Log block to the filtration or trapping device should exceed one (1) minute. A plan from the Contractor should be provided indicating how the flow time has been provided showing that the product is being used in accordance with the manufacturer's requirements.

The Floc Log block shall be placed within the exit pipes of drainage structures or in ditches just below the first check dam leaving a construction or disturbed area. A rope attached to the block shall be provided and shall secure the block in place. Where more than one block is required at a site, the securing ropes shall be placed to allow the succeeding blocks to lie in series along the ditch or pipe, not side by side. Downstream soil surfaces that can contribute erodible soils or colloids shall be protected from erosion stress under the appropriate item.

- 3. Handling:** Polyacrylamide shall be handled in accordance with all Material Safety Data Sheet (MSDS) requirements and the manufacturer's recommendations.
- 4. Observation Period:** The Floc Log block placement shall be inspected during or immediately after a significant rain event. In the event of no rain, an inspection shall be conducted not less than every week. The Floc Log blocks shall be replaced as necessary.

The Engineer shall determine the effectiveness of the installation by observing the fine particle settlement in the trapping device. The Engineer may direct the placement of additional Floc Log blocks, if required, based on observation, as recommended by the manufacturer.

METHOD OF MEASUREMENT

The application of Floc Log block will be measured by the number of blocks furnished, installed, maintained and removed.

BASIS OF PAYMENT

The unit price bid for each Floc Log shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work including soil testing, inspection and removal. The required filtration and/or trapping devices required by this specification will be paid for separately under the appropriate payment items.

The Engineer will pay 15% of the total payment for soil testing an analysis, the remainder of the payment to be paid upon completion of the specification requirements.