

**ITEM 614.03----11 M – BIO-BARRIER ROOT CONTROL**

**DESCRIPTION** - This item consists of furnishing and installing Bio Barrier Root Control in the quantity and at the locations shown on the plans, or as ordered by the Engineer/Landscape Architect.

**MATERIALS** - This item shall conform to ASTM Standards as listed below:

D-5261	Test Method for Measuring Mass per Unit Area of geotextiles
D-4632	Test Method for Grab Breaking Load and Elongation of geotextiles
D-4833	Test Method for Index Puncture Resistance of geotextiles, geomembranes and Related Products
D-4533	Test Method for Trapezoid Tear Strength of geotextiles
D-4491	Test Method for Determining the Apparent Opening Size of a geotextile
D-4355	Test Method for Deterioration of geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)

This item shall conform to EPA Standards (Reference EPA Label) Registration No. 59823-1 (Attached Exhibit B)

EPA	CG	1500	Water Solubility
EPA	CG	1600	Vapor Pressure

Fibers used in the manufacture of root control barrier substrate fabric shall consist of long chain synthetic polyolefins (at least 95% by weight) and a UV stabilizer. They shall be formed into a stable network such that the filaments or yarns retain their dimensional stability relative to each other.

Nodules consisting of trifluralin, carbon black, and polyethylene compounded in a patented method utilizing time-released characteristics are permanently attached to the substrate fabric on 38mm centers by a through injection molding process.

All substrate property values, with the exception of apparent opening size (AOS), in these specifications represent minimum average roll values (MARV) in the weakest principal direction (i.e., average test results of any roll in a lot sampled for conformance or quality assurance testing shall meet or exceed the minimum values provided herein). Values for AOS represent maximum average roll values.

Property values for the trifluralin are average run values.

The Biobarrier Root Control System shall be manufactured by the following or an approved equal:

Reemay  
70 Old Hickory Blvd.  
Old Hickory, TN 37138

EPA Registration No.	59823-1
Establishment No.	59823-TN-1

The manufacturers specifications and/or brochures in sufficient detail to indicate compliance with this specification shall be made available to the Engineer/Landscape Architect, 1 week prior to delivery of the root control system to the project site. The manufacturer is responsible for establishing and maintaining a

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quality control program to assure compliance with the requirements of the specification. Documentation describing the quality control program shall be made available upon request.

**CONSTRUCTION DETAILS** - Biobarrier is ready for in-soil installation as received. Contractor shall place fabric in soil as soon as practical once it is removed from the sealed shipping container, minimizing exposure to direct sunlight and elevated temperatures. Prolonged exposure can reduce the effective life of the product.

Vertical fabric position shall be maintained by suspending it at the top with pegs. Horizontal applications may require seaming or hold down pegs. Surround applications may involve a variety of holding devices to assure fabric position. In all applications, nodules must be no further than 38mm apart in order to assure a continuous root control plane. Fabric should extend a minimum of 457mm beyond structure area to be protected as roots can grow around edges of fabric. For vertical applications, the top edge must be even with the soil surface. A minimum of 51mm overlay should also be maintained for horizontal applications.

Biobarrier should not be installed in water.

If used in retrofit applications where roots are already present, roots must be interrupted with a root pruner or equivalent device and removed (CARE OF TREES ROOT PRUNING ONLY) as directed by EIC and/ or Regional Landscape Architect.

During storage, root control product shall be elevated off the ground and out of direct sunlight. It shall remain sealed in EVOH protective bag inside original shipping box at a temperature of not more than 110°F.

**METHOD OF MEASUREMENT** - The quantity to be paid for will be measured as the number of square meters of Bio-Barrier furnished and installed in accordance with the plans and specifications or as directed by the Engineer.

**BASIS OF PAYMENT** - The unit bid price shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work.