

SECTION 4: POLLUTANT REMOVAL - ENVIROSOXX[®]

Filtrex[®] Heavy Metals Removal Agent (MetalLoxx[®])

HEAVY METALS REMOVAL AGENT

Description

Filtrex Heavy Metals Removal Agent (**MetalLoxx[®]**) is a natural ionic adsorbent that is used with Filtrex[®] sediment control and pollution prevention practices, such as SiltSoxx[™] for Perimeter Control, Check Dams, Inlet Protection, Filter Rings, Slope Interruption, Sediment Traps, and Filtration System Soxx[™] Baffles. It is specifically used to **reduce metals loads (Cd, Cr, Cu, Ni, Pb, Zn) in urban and post-construction storm runoff**, particularly on contaminated soils; around parking lots, highways, and rooftops; around sensitive watersheds and receiving waters, and near TMDL (303d) listed water bodies. MetalLoxx should not be used without a Filtrex management practice.

Function

MetalLoxx is a natural sorbent technology that reduces soluble metals (Cd, Cr, Cu, Ni, Pb, Zn) in runoff when applied with Sox applications. MetalLoxx is a material that chemically adsorbs positively charged ions to the surface of the MetalLoxx particle, thereby removing the pollutant from runoff transport, preventing it from reaching receiving waters, and reducing the bioavailability of the metal. By rendering the heavy metal unavailable to aquatic plants and animals, water quality can be maintained or improved bioaccumulation can be prevented. MetalLoxx has a mild negative electrostatic charge that attracts positively charged ions. As metallic ions attach to the MetalLoxx exchange sites on each MetalLoxx particle, soluble metals are taken out of the storm water runoff flow and rendered unavailable for an indefinite time period. MetalLoxx can be applied in varying application rates to fit the metals removal objective of the application. MetalLoxx is not a coagulant and is 100% formulated with all natural materials. For more information on testing and research with MetalLoxx and Filtrex products see Tech Links in the Appendix and performance criteria tables presented with each of the Filtrex products listed with this specification.

Installation

1. Where required, MetalLoxx shall be surface applied manually, directly upslope, and along the entire length of the Filtrex sediment control

or filtration practice, or thoroughly mixed with filtration media prior to filling socks.

2. MetalLoxx shall be applied at a rate of 40 lbs/ cubic yard of filtration media for optimum performance.

Inspection & Maintenance

1. Additional applications of MetalLoxx may be added after storm events to decrease nitrogen loading and contamination of water bodies resulting from future rainfall/runoff events.
2. If Soxx exhibit significantly reduced hydraulic flow through rates or become clogged, they should be cleaned out or replaced.

Method of Measurement

Bid items shall show measurement as Filtrex[®] Heavy Metals Removal Agent/MetalLoxx[®] + Filtrex BMP per linear ft or per linear m installed.

ADDITIONAL INFORMATION

For other references on this topic, including additional research reports and trade magazine and press coverage, visit the Filtrex website at www.filtrex.com

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