

Filtrex[®] Metals Agent

Heavy Metals Reduction Technology

Metals Removal Agent

Description

Filtrex Metals Removal Agent (MRA) is a natural (zeolite based) ionic adsorbent that is used with Filtrex sediment control and pollution prevention practices, such as sediment control, ditch checks, filtration rings, slope interruption, inlet protection, sediment traps, and filtration cell filtration 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. MRA should not be used without a Filtrex management practice.

Function

MRA is a natural flocculent that reduces soluble metals (Cd, Cr, Cu, Ni, Pb, Zn) in runoff when applied with Filtrex® FilterSoxx™ application. MRA is a material that chemically adsorbs positively charged ions to the surface of the MRA 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. MRA has a mild negative electrostatic charge that attracts positively charged ions. As metallic ions attach to the MRA exchange sites on each MRA particle, soluble metals are taken out of the storm water runoff flow and rendered unavailable for an

indefinite time period. MRA can be applied in varying application rates to fit the metals removal objective of the application. MRA is not a coagulant and is 100% formulated with all natural materials. For more information on testing and research with MRA 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, MRA 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. MRA shall be applied at a rate of 20 lbs/cubic yard (12 kg/cubic meter) of filtration media for optimum performance.

Inspection & Maintenance

1. Additional applications of MRA may be added after storm events to decrease nitrogen loading and contamination of water bodies resulting from future rainfall/runoff events.
2. If FilterSoxx™ 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 MRA + Filtrex BMP per linear ft or per linear m installed.



ADDITIONAL INFORMATION

For other references on this topic, including trade magazine and press coverage, visit the Filtrexx® Website at: <http://www.filtrexx.com/resourcespress.htm>.

For research reports not included in the Appendix, visit: <http://www.filtrexx.com/resourcesreports.htm>.

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