Tomorrow’s water solutions... Today!

Stormwater Solutions

Stormwater Filtration and Treatment

BioMax™ Media

BioMax™ media is an inert, biocompatible enhancement that is easy to apply in bioswales, engineered filters, permeable pavements, and other green infrastructure systems. BioMax media combines fast acting, high capacity absorption with proven remediation agents.

Construct bioswales 30% smaller with performance of conventional, large bioswales. BioMax media enhances performance of high-flow soil, allowing for compact bioswales that fit into tight, urban environments, giving more buildable land to be used in new developments.

Applications

Bioswales

Protect natural stormwater systems by capturing and treating harmful contaminants. Reduce effluent load, increase nutrient absorption, and prolong bioswale life.

Engineered Filters

Fast absorption combined with high capacity makes BioMax Media uniquely suited for high-flow applications, such as engineered stormwater filters.

Permeable Pavements

Enhance treatment capability of standard permeable and pervious pavement systems, providing a better stormwater management solution.

Tree Box Filters

Enhance traditional tree box filtration systems by absorbing contaminants, even at heavy loads and high-flows. Improve treatment effectiveness and protect the trees.

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**Bioswale Enhancements**

*Compact size, hardier plants, increased nutrient capture*

BioMax media protects soil biology and plant life, improving the ability of a bioswale to process nutrients, even at high flow rates.

Compact bioswales constructed using BioMax media are idea for urban environments and new developments.

Once installed, BioMax media regenerates during dry periods, requires no maintenance, and lasts the life of the swale.

**Benefits of BioMax Bioswale Enhancements**

- 30% smaller without performance loss
- Protects plant life for increased nutrient absorption
- Easily integrates into existing stormwater system designs
- Inert and biocompatible
- Does not affect natural soil composition
- Last the life of the bioswale without maintenance

**Engineered Filter Enhancements**

*Enhance contaminant capture in high-flow, high-load environments*

Engineered filter systems must be able to handle high flow rates and high contamination loads during rain events. BioMax media captures contaminants virtually on contact and has a very high capacity. BioMax enhanced filters demonstrate significantly improved treatment performance over standard systems.

BioMax media particularly enhances the capability of capturing and treating VOCs and hydrocarbons. It can be deployed as a mixed in enhancement to existing filtration media.

**Benefits of BioMax Engineered Filter Enhancements**

- Quickly captures contaminants, including metals
- Easily integrates into existing stormwater system designs
- Extremely high capacity
- Inert and biocompatible
- Durable and long lasting

**Tree Box Filter Enhancements**

*Protect essential biology and improve performance*

Frequently installed near roadways, tree box filters are exposed to high flow rates and high pollutant loads. As with upflow filters, fast and thorough capture of contaminants is paramount to the efficiency of the system. Adding BioMax Media ensures that effluent is clean and that soil biology is protected, improving performance.

When added to the standard filtration mix, BioMax media will significantly increase capture and treatment of common roadway and parking lot contaminants such as VOCs, hydrocarbons, and heavy metals.

**Permeable Pavement Enhancements**

*Easily clean and infiltrate roadway and parking lot runoff*

Permeable and pervious pavement systems work well to reduce runoff and infiltrate stormwater back into the ground. However, they provide no means of capturing or treating runoff contaminants, even though many of these pavements are designed for vehicle traffic and the presence of VOCs and hydrocarbons is to be expected.

BioMax media can be coated onto aggregate or trap rock, or it can be spread into the bedding layer. Its use does not require any changes to typical installation practices.

**Benefits of BioMax for Permeable Pavements**

- Add treatment capabilities to permeable paver systems
- Easy to install, no changes to procedures required
- Easily integrates into existing stormwater system designs
- Inert and biocompatible
- Long lasting and maintenance free

www.absmaterials.com 330.234.7999
BioMax™ Media

BioMax Media is an engineered, silica-based material designed to absorb organic contaminants from water. It is chemically inert and biocompatible. Infused with zero-valent iron, BioMax media will not only capture organic pollutants, but also has the capability to break them down into harmless compounds that are easily absorbed and utilized by plants for vigorous growth.

At the onset of a rain event, BioMax media immediately buffers the first flush of highly contaminated runoff. By protecting plants and soil biology from the harmful pollutants, BioMax media increases the ability a filter system to absorb nutrients, thus not only reducing the chemical pollutant load, but also significantly reducing the nutrient load in the effluent.

BioMax media will self regenerate during dry periods and will last for the life of a bioswale or for the length of a typical maintenance interval in the case of manufactured stormwater systems.

**BioMax Media Increases Nutrient Capture**

BioMax Media Removes:
- Hydrocarbons (*petroleum products*)
- Herbicides (*e.g. atrazine, 2,4-D*)
- Pesticides (*e.g. metaldehyde*)
- Insecticides (*e.g. allethrin, permethrin*)
- Chlorinated Solvents (*TCE, PCE*)
- Fluorinated Compounds (*Fluoxetine, PFOAs*)
- Polychlorinated Biphenyls (*PCBs*)

Bioswales enhanced with BioMax Media capture and break down nitrogen and phosphorous more efficiently than standard bioswales.

**About ABS Materials, Inc.**

We provide specialty absorbent solutions for a variety of markets. Our products solve challenging problems with efficient, effective, high-value, eco-friendly methods.