

STORM GUARD FILTRATION BAGS

StormGuard™ Filtration Bags

Manufacturer: Sunmark Environmental Services LLC
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Sunmark Environmental Services, LLC certifies that StormGuard™ Filtration Bags contain the following properties and characteristics

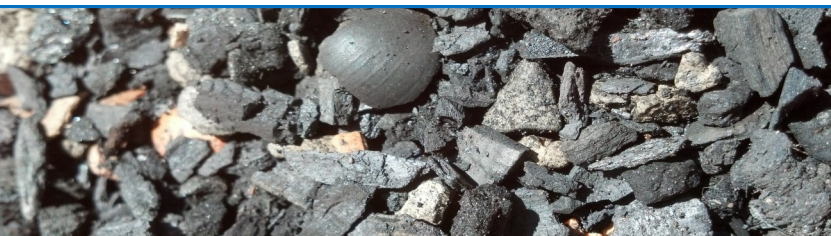


Description—Where to use

StormGuard™ filtration bags are made with an advanced geosynthetic material that provides high flow rates and are impact and UV resistant. These bags are filled with Earthlite™ Stormwater Filter Media. Independent testing shows that Earthlite™ Stormwater Filter Media removes TSS, Heavy metals, Phosphorus, Oil, Grease and E.Coli. Used as a temporary filter around catch basins, channelized water and along linear strips to provide a consistent filter for sheet flow from impervious surfaces. StormGuard™ filtration bags are an easy, inexpensive solution for problem catch basins and other areas where your stormwater discharge is not meeting benchmarks.

Composition -- Earthlite™ Stormwater Filter Media

Earthlite™ Stormwater Filter Media consists of biochar and expanded shale, clay or slate and lightweight, highly porous aggregates, designed for superior scrubbing and filtration of pollutants. Firing at 2000° in a rotary kiln, this produces a consistent and predictable high quality aggregate that is strong, physically stable, light in weight and highly absorbent. As a filter medium, Earthlite™ is very durable, and coupled with its porous structure and increased surface area it provides a superior way to filter many different pollutants.



Key Component — Biochar

Biochar is created using a pyrolysis process, heating biomass in a low oxygen environment. Earthlite™ Stormwater Filter Media is made of a highly specialized organic media that filters stormwater naturally. These organics coupled with biochar serves as an ionic exchange media adsorbing traces of mineral ions onto the particle surfaces from both the surrounding soils and rain or stormwater runoff. Biochar particles trap and hold the minerals within the charcoal's molecular structure. The increased absorption and retention through organic absorbents, and porous aggregates provides additional hydration to stimulate the ion exchange necessary for increased microbial development. Treatment within the enhanced biotic component is accomplished by a combination of physical filtration, metal retention, chemical adsorption, and biological treatment by microorganisms.

Bag Characteristics

Bag Material	High-Tenacity Polypropylene
Flow Rates	70 (gal/min/ft ²)
Apparent Opening Size (AOS)	U.S. Sieve (mm) 40 (0.43)
UV Resistance (at 500 hours)	90%
Mass/Unit Area	8.8 Ounces per Yard

Packaging and Shipping Data

Bag Size	Variable
Bag Weight	Average 25 to 60 Pounds
Media Weight	36 Pounds / Cubic Foot

Advantages—Using Earthlite™ Stormwater

- Consistent, high flow rates, dependable
- Physically and chemically inert
- Greater surface area, higher adsorption
- Hydraulic conductivity allows fast, free drainage
- Ceramic properties reduce material degradation
- High angle of internal friction provides stability and strength
- Reduced weight lowers freight and handling costs
- Removes or reduces phosphorus, arsenic, metals, grease, oils and more
- Combines nutrient removal and effluent filtration for cleaner discharge
- Employs ion exchange to enhance treatment process

Earthlite™ Stormwater Effectively Removes

Turbidity (TSS)

Chemicals (Phosphorus, Nitrogen, Etc.)

Heavy Metals (Zinc, Copper, Lead)

Oil & Gas (Petrochemicals)

