

EarthLite™ STORMWATER FILTER MEDIA



STORMWATER
FILTRATION



EarthLite™ Stormwater Filter Media

EarthLite™ Stormwater Filter Media utilizes affordable, natural, carbon neutral biochar that is universally applicable to all manufacturers' systems and is highly adaptable to custom Installations. EarthLite™ Stormwater Filter Media utilizes Carbon Lock™ Technology, where the polarity of the biochar grabs and holds on to heavy metals like a magnet, locking them to its surface. This university tested technology uses Biochar at its basis for locking heavy metals onto the biochar filter media. Small and soluble heavy metals are attracted to the polarity of Biochar and attach on to surface areas through both absorption and adsorption.

EarthLite™ Stormwater Filter Media Effective For

The effective ingredient in EarthLite™ Stormwater Filter Media is the biochar. But since every biochar is not created equal, outcomes will vary with different source stocks and pyrolyzation techniques. Sunmark's advantage is in its optimization process, carried out by University testing to utilize the best method for procuring a quality, high performing biochar. Field testing began in 2010 and has continued to show impressive results. EarthLite™ Stormwater Filter Media is ready to help bring your stormwater into compliance.

EarthLite™ Stormwater Filter Media on Industrial Sites

Industrial sites are often a challenge to meet stormwater discharge benchmarks, and finding a affordable solution can be difficult. EarthLite™ Stormwater Filter Media is a universally adaptable, affordable filter media with proven results in removing heavy metals and other contaminants from stormwater runoff.

EarthLite™ Stormwater Filter Media Applications

- Removes Zinc, Copper, Lead, Iron, Aluminum, Cadmium, Chromium
- Adaptable to most existing systems and facilities
- Economical
- Tested in real world settings on industrial applications
- Simple and Easy to install and maintain

EarthLite™ Stormwater Filter Contact Info

Sunmark Environmental Services LLC
PO Box 1210 Fairview OR 97024

503-241-7333
888-214-7333

Sunmark Environmental certifies that EarthLite™ Stormwater Filter Media contains the properties and characteristics on this sheet.

www.Earth-Lite.com/rain

www.SunmarkEnvironmental.com



EarthLite™ Stormwater Filter Media Technical Data

- ⇒ Suitable for use in most stormwater treatment applications!
- ⇒ Replacement media for existing stormwater filter systems.
- ⇒ Easily applied to new stormwater design work.
- ⇒ Value add, high performing filter media.
- ⇒ Fraction the cost of activated charcoal filters.

Industrial Site Test Results (3rd Party)

Zinc Removal

2/28/17	3.02 mg/L	.0724 mg/L	97.6%
2/24/17	.346 mg/L	ND	99.9%
1/31/17	2.2 mg/L	.0065 mg/L	99.9%
10/4/16	.533 mg/L	ND	99.9%

Copper Removal

6/10/16	96% Removal
3.51 mg/L	down to .128 mg/L
See website for more pollutants and removal rates:	
www.Earth-Lite.com/rain/stormwater-results/	

Oregon State University Breakthrough Data

Roof Runoff Filter Lifetime for >50% Removal

Media	Dissolved Zinc (influent = ~1,000 ug/L)				Dissolved Copper (influent = ~120 ug/L)			
	Filter Volumes	Gallons/ft ³	ROOF Size*		Filter Volumes	Gallons/ft ³	ROOF Size*	
			5,000 ft ²	10,000 ft ²			5,000 ft ²	10,000 ft ²
EarthLite™ SFM	2,770	20,721	3.3 yrs	1.7 yrs	>10,000	>75,000	12 yrs	6 yrs
100% Biochar	405	3,030	0.5 yrs	0.24 yrs	3,480	26,032	4.2 yrs	2.1 yrs

Roof Runoff Filter Lifetime for 120 ug/L Zinc & 20 ug/L Copper

EarthLite™ SMF	1,500	11,221	1.8 yrs	0.9 yrs	>10,000	>75,000	12 yrs	6 yrs
100% Biochar	207	1,548	0.25 yrs	0.12 yrs	2,550	19,075	3 yrs	1.53 yrs

*Changeout time assumes 36" annual rainfall with 100% runoff and a 1.5 safety factor.

Actual Stormwater used, gathered from an industrial building roof and then spiked with 100% Dissolved Zinc & Copper to generate Influent Numbers shown.

Physical Characteristics

Total Carbon	85%
Applied Color	Black
Particle Sizing (Mesh)	
Filter Media:	#16 to 3/8 in
Flammability	None
Bulk Density	55 lbs. per cubic foot

Physical Properties

Mineral	Porous aggregate
CEC	High (60 cmolc/kg) average
Carbon	Biochar (High Temp. 500 ^c)
Flow ability	Free Flowing Media
Special Handling	None

