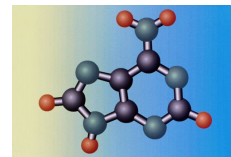


ESI

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EcoSense Filtration Technology



ESI MZ Stormwater Media Modified Alumino Silicate

Why ESI MZ is Superior to Tailored Clays

Tailored clays have been used successfully for a number of years to absorb organic contaminants. ESI MZ, because it is not a clay medium, but an alumino silicate, is a better alternative. When water passes through a clay medium, the clay particles expand reducing the inter-particle space and lowering the permeability of the clay medium. Indeed, the tailoring process itself, due to coagulation of the tailoring agent may cause a further reduction of permeability. The ESI MZ alumino silicate is a large network of open channel ways, similar to a sponge, with uniform holes and a high cation exchange capacity. Unlike clay particles, this structure is rigid and stable (even under aqueous conditions) allowing more contaminants to be absorbed in its open channel ways.

Examples of the chemistry ESI MZ can be effective in removing from waste streams:

anthracene	naphthalene	benzene	non-ionic surfactants	chloroform
penenthrene0	creosote	oil/grease	ethyl benzene	pentachlorophenol
diesel fuel	PCE	Flourene	pyrene	fulvi acids
solvents	toluene	humic acids	indeno pyrene	methylene chloride
THM's	aluminum	magnesium	antimony	manganese
Arsenic	mercury	barium	nickel	cadmium
Selenium	calcium	silver	chromium	tin

Properties

Cation exchange capacity	2.2 meq/g
Bulk density (treated)	55 bs/ft ³
Hardness	5.1 mohs
Pore size	4.0A
Thermal stability	1,202F
Specific surface area	40 m ² /g
Mesh size	4x6, 6x14
Crushing strength	2,500 lb/in ²

WATER SOURCE	MEDIUM	POLLUTANT CONCENTRATION (mg/l)					
		COPPER		ZINC		ORTHO PO ₄	
		IN	OUT	IN	IN	IN	OUT
Catch Basin Sump	ESI•MZ	0.03	0.02	0.04	0.02	0.37	0.07
	PuraSense™	0.03	0.02	0.04	0.01	0.37	0.09

WATER SOURCE	MEDIUM	PERCENT REMOVAL		
		COPPER %	ZINC %	ORTHO PO ₄ %
Catch Basin Sump	ESI•MZ	33	50	81
	PuraSense™	33	75	76