



ZeoMaxx Media



ZeoMaxx Separation Medias

A family of mineral medias offering the removal of a wide variety of water born contaminants.

ZeoMaxx media have high cation exchange capacities. Ammonia (NH₄), heavy metals (Pb, Cu, Cd, Zn, Co, Cr, Mn and Fe; Pb, Cu as high as 97 %), toxins, low level radioactive elements (Cs, Co, Sr, Ag), flouride, petrochemicals, non-polar oils, fuels, hydraulic fluids, transmission fluid, petroleum distillates and many others are adsorbed by ZeoMaxx.

Due to its high cation exchange capacity, large surface area, highly porous crystal structure, eco-friendly composition it has a wide range of applications for water treatment. ZeoMaxx's ion exchange efficiency is not affected by temperature or pH changes.

The Key to successful water treatment and filtration is selecting the right combination of media and hardware. For treatment of hydrocarbons, heavy metals, and other organic contaminants, the optimal solution is efficient oil and water separation followed by ZeoMax. Because ZeoMaxx can adsorb up to 70% of its weight in hydrocarbons, its life expectancy inside a filter vessel is much longer than that of other process media such as granular activated carbon (GAC) as GAC is not designed for high fuels/oils concentrations and is best suited to low concentration products where blinding is a lesser effect.

Comparisons between ZeoMaxx and organo-clays (OCs)

- ZeoMaxx has cation exchange capacity OCs do not
- Active media by volume: ZeoMaxx provides 100%, OCs provide 30% (OCs are mixed 30/70 with anthracite)
- Bulk density: ZeoMaxx is 58 lbs/ft³, OCs are 53 lbs or less.
- Lbs of active media/ft³, ZeoMaxx is 58 lbs, OCs are 21.5 Lbs.

Superior Liquid Filtration

- No swelling upon water exposure
- More active ingredients per cubic foot than organoclay media
- Can be used at full strength or custom blended
- Prolongs life of activated carbon and resins thereby reducing costs and increases efficiency
- Cost effective and environmentally sound technology

ZeoMaxx's Versatility

Free Standing Mode:

Used alone ZeoMaxx can be loaded in filter vessels for use as an efficient filtration medium. Other applications include tank cleaning, oil spill mitigation, groundwater remediation, car / all vehicle wash water treatment.

Pre-Treatment Mode

ZeoMaxx can be used upstream to enhance the performance and extend the useful life of other filtration processes and media such as reverse osmosis, activated carbon and exchange resins.

Post-Treatment Mode:

ZeoMaxx utilized downstream of an oil-water separator or coalescing filter, has the ability to act as an effective cleaning and polishing agent. The density of the product will be 57-59 pounds per cubic foot.



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ZeoMaxx Removes (partial list)

Oils, Grease, Fuels, Petroleum, Refined & Unrefined

Free and dispersed oils can be removed 95% +

Heavy Metals

Aluminum	Lead	Zinc
Cadmium	Mercury	
Chromium	Nickel	
Copper	Selenate	

Hydrocarbons and other contaminants

Acenaphthene	Flourine	Flouranthene
Ammonia	Gas Range Hydrocarbons	
Anthracene	2-Methylnaphthalene	
Benzo (a) Anthracene	Motor Oil	
Benzo (b) Flouranthene	Naphthalene	
Benzo (a) Pyrene	PCP (pentachlorophenol)	
Benzo (g,h,i) Perylene	Phenanthrene	
BOD's	Phenolics (recoverable)	
BTEX	Pyrene	
4-chloro-3-Methylphenol	TCE	
Chromate	TOC	
Chrysene	Total Phosphorus	
COD's	TPH (Total-Petroleum Hydrocarbons)	
1,1 Dichloroethane	TSS's	
1,2 Dichloroethane	Vinyl Chloride	

Constituents have had a 95%+ Reduction when treated with AQAM media.

Operating Conditions

Temperature range:	33-170° F
pH Range:	4-10
Density:	58#/ft3
Particle structure:	Crystalline pore
ZeoMaxx material:	Modified zeolite
Mesh:	8 X 14
Activator:	125 milimoles of cetyl trimethyl ammonium chloride per kilogram of zeolite
Ionic charge:	Negative, non-selective
Crush strength:	1600 psi
Dusting:	Dusting amount similar to GAC
Backwashable:	Yes and can extend bed life if solids are an issue

Retention Timing (Approximate, column & analytical testing recommended to verify)

Oils:	5-7 minutes
Metals:	10-15 minutes



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Applications

Post Treatment:

- Following Oil Water Separators
- Following DAFs
- Following Slant Plate Clarifiers

Pretreatment:

- Prior to membrane filters
- Prior to GAC filters
- Prior to resin filters

Media Models and Uses

- **Z100 & Z100C** Ammonium removal.
- **Z200** Our most versatile media with more active media per Ft³ than organoclays, removes oils/fuels, sheens, heavy metals and similar organics from water. Because Z200 series can absorb up to 70% of its weight in hydrocarbons, it is often used prior to granular activated carbon to extend the GAC media life and increase system performance.
- **Z275** The liquid phase filtration media is a 4 x 10 mesh zeolite impregnated with dimethyldioctadecylammonium chloride per kilogram of zeolite. The density of the product shall be 53-56 pounds per cubic foot.
- **Z300** Media to remove anionic compounds including phosphates and nitrates. The liquid phase filtration media ZM300 shall be 8 x 14 mesh zeolite impregnated with Naphthalkonium chloride. The density of the product shall be 57-59 pounds per cubic foot.
- **Z-AS** Activated alumina media for arsenic, fluoride, removal.
- **AC830, AC410** activated carbon medium is used to remove BTEX, VOCs, Napthalene, phenol, MEK, PCBs, TCE, THMs, fertilizers, pesticides, taste, odor, many other organic contaminants, MBAS, and chlorine as well as being used in many drinking water applications.