



Riley Equipment Company
6911 Gant Road
Houston, Texas 77066
www.recofiltration.com
(281) 583-5295 Fax: (281) 583-5299

Bayoxide E33 Adsorption Media

Bayoxide E33 Adsorption Media is the standard for arsenic reduction in filtration. It removes up to 99% of total arsenic, including arsenic (III) and (V). This is an iron-based media that has 4-10 times the capacity of other adsorption medias. According to the manufacturer this product can be discarded when spent, and does not require chemicals, salts, or regeneration.

APPLICATION: Reduction of Arsenic in drinking water.

Technical Specs

Matrix	Iron Oxide Composite
Physical Form	Dry granular media
Color	Amber
Particle Size Distribution	10x35 mesh
Moisture Content	<15% by weight
Packaged	Dry

Arsenic Removal Performance (POE)

Arsenic concentration range	10-100+ ppb
Arsenic species reduced	As (III) and As (V)
Removal efficiency	Up to 99%
Estimated media life	2-3+ years
Expected life bed volumes	15,000-125,000 (*based on water quality)
Spent media disposal	Non-hazardous waste (*Reference US EPA TCLP protocol)
Empty bed contact time	3 minutes typical

Water Quality Criteria (based on recommendations for best performance)

pH range	5.5-8.5
Arsenic	<100 ug/L
Iron	<0.3 mg/L
Manganese	<0.05 mg/L
Phosphate	<0.5 mg/L
Silica	<30 mg/L
Sulfate	<100 mg/L
Sulfides	<detect mg/L
TSS	<5 mg/L
Fluoride	<1 mg/L
Hardness	<300 mg/L
Turbidity	<5 NTU

System Design Parameters	5 GPM dual tank	5 GPM single tank	10 GPM single tank
Typical Tank size (inches)	10x42	12x52	14x65
Media Volume (cubic feet)	(2) 1-ft³ ea	2 ft³	4 ft³
Operation mode	2 in series	Single tank	Single tank
Media Type	E33S	E33S	E33S
Underbedding	Gravel	Gravel	Gravel
Typical Freeboard (%)	40	40	40
Backwash flow rate (gpm/ft ³)	4	5	10
Backwash cycles (per month)	2x	2x	2x
Est. gallons per day	300	300	500
Est. gallons to breakthrough	374,000	374,000	561,000
Est. time to media changeout	2-3+ years	2-3+ years	2-3+ years
Max flow rate (gpm)	5	6	10

Note: Media life based on gallon usage and water profile (above is example only!), and will vary by individual site based on water quality and usage. The manufacturer recommends effluent testing and monitoring program to determine media breakthrough. Average gallons per day will be site and usage specific.

Standard Packaging: 35 lb. boxes. 245 lb. drums. 1280 lb. super sacks available.

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