Aldex CR Series

CR 33 Arsenic Selective Media

Aldex CR 33 is based on ion exchange resin designed to selectively remove arsenic from ground water without affecting the characteristics of influent water. Aldex CR 33 performs well in spite of the presence of common anions such as chlorides, sulfates or bicarbonates. Aldex CR 33 is used like conventional ion exchange resins.

Physical Chemical Properties

Physical Form: Reddish brown beads

Matrix: Isosporous Moisture Content: 47 to 54%

Net Weight (as shipped): 800 g/l, approximately
True density: 1.145 g/ml, approximately

Particle size: 0.3 to 1.2 mm

Recommended Operating Conditions

Maximum Temperature: 140 °F / 60 °C
Operating pH: 6.0 to 8.5
Arsenic Adsorption Capacity: 0.5 to 1.5 g As/l
Static Arsenic Adsorption Capacity: 25 to 30 mg/g
Recommended Contact Time: 2.5 to 5 minutes
Specific Service Flow Rate: 20 to 30 BV/h
Bed Depth: 30" minimum

Packing

Aldex CR 33 is supplied in 1 cubic foot poly bags.

Storage

Aldex resins require proper care at all times. The resins must never be allowed to become dry. Repeated drying and re-wetting produce stresses analogous to those due to osmotic shock and can lead to fragmentation of ion exchangers.

CR 33 Features

Conventional Operation

Operates at conventional pressure and flow rates. Aldex CR 33 is operated in a similar manner like conventional ion exchange resin. No fines generation during usage.

Influent Water Quality

Turbidity <1 NTU
Iron (Fe) <0.5 ppm
Manganese (Mn) <0.5 ppm

Presence of phosphates, vanadium and silica may affect arsenic removal capacity.

Potable Water Applications

Ideal for municipal, residential, POE and POU devices.

Safe for TCLP After Exhaustion

After exhaustion, Aldex CR 33 is non-toxic and safe for disposal as per TCLP (Toxicity Characteristic Leaching Procedure as per EPA 1311).

Safety Information

Acid and alkali solutions used for regeneration are corrosive and should be handed in a manner that will prevent eye and skin contact. If any oxidizing agents are used, necessary safety precautions should be observed to avoid accidents and damage to the resin.

Aldex CR 33 resin is produced in an ISO 9001 and ISO 14001 certified manufacturing facility.



Treatment flow rate

CR 33 Arsenic Selective Media

Municipal Arsenic Removal System

Hand Pump Attachment Inlet Feed Water Quality

Parameters	Inlet of Hand Pump
pH:	7.40
Conductivity:	600 to 700 μs/cm
Alkalinity:	264 ppm as Calcium Carbonate (CaCO ₃)
Total Hardness:	240 ppm as Calcium Carbonate (CaCO ₃)
As Iron (Fe):	0.5 to 1 ppm
As Arsenic (As):	0.15 to 0.2 ppm

160 to 185 GPM

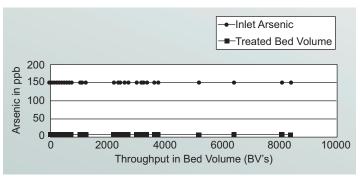


Fig. 1 Hand Pump Attachment Unit

Arsenic Point of Use (POU)

Inlet Feed Water Quality

Parameters	Inlet of POU
pH:	7.30
Conductivity:	600 to 700 μs / cm
Alkalinity:	352 ppm as Calcium Carbonate (CaCO ₃)
Total Hardness:	340 ppm as Calcium Carbonate (CaCO ₃)
As Iron (Fe):	0.5 to 1 ppm
As Arsenic (As):	0.2 ppm
Treatment Flow Rate:	15 to 24 GPM

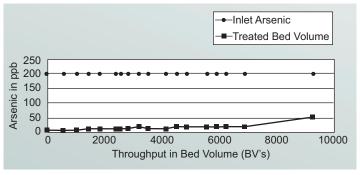


Fig. 2 Arsenic POU

