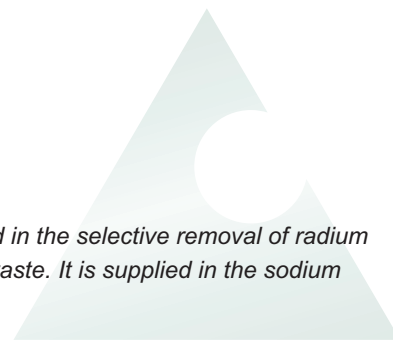


Aldex Chelation Resin (CR) Series

CR 88 Radium Selective Resin

Aldex CR 88 is a **high capacity, high quality, barium infused gel-type cation resin** used in the selective removal of radium from drinking and underground water without the generation of sludge or other unwanted waste. It is supplied in the sodium form as beige colored opaque beads in 1 cubic foot bags and larger bulk packages.



Physical Chemical Properties

Polymer Structure:	Styrene crosslinked with divinylbenzene (S-DVB)
Physical Form:	Beige, opaque spherical beads
Mean diameter:	400 ± 80 µm
Moisture Content:	61 to 72%
Total Capacity:	0.8 eq/l
Specific Gravity:	1.22 g/mL
Net Weight (as shipped):	48 lbs per cubic foot

Recommended Operating Conditions

Operating Temperature:	212 °F maximum
Influent pH:	0 to 14
Operating Manner:	Downflow
Volumetric Flow:	1 to 5 US GPM per cubic foot
Linear Velocity:	5 to 15 US GPM per square foot
Radium capacity:	11 to 18 nanocuries/g

Safety Information

A material safety data sheet is available for Aldex CR 88. The radium-laden CR-88 can be disposed of properly by an accredited radioactive waste disposal company.

Caution: Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Before using strong oxidizing agents in contact with ion exchange resin, consult sources knowledgeable in the handling of these materials.

CR 88 Features

Removes Radium

Aldex CR 88 is a highly effective and cost efficient resin that removes radium from drinking water and groundwater without producing any waste or sludge.

Excellent mechanical strength

The optimized formulation and ion exchange matrix of Aldex CR 88 provides excellent mechanical strength during the radium selective extraction process.

Reliability

Over 40 years of actual field usage by thousands of customers demonstrates the reliability of Aldex brand resins.

CR 88 Operating Recommendations

Lead-lag operation is suggested in order to fully utilize the resin in the lead tank before re-bedding.



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Backwash Characteristics

Aldex CR 88 should be backwashed for at least 10 minutes after each service cycle in a conventionally down flow regenerated softener. To reclassify the beads and remove suspended solids from top of the bed, the resin bed should be expanded at least 50% according to Fig. 1. For non-conventional or upflow regenerated softeners, it may not be necessary to follow the above procedure since the backwash and brine injection are incorporated in the same step.

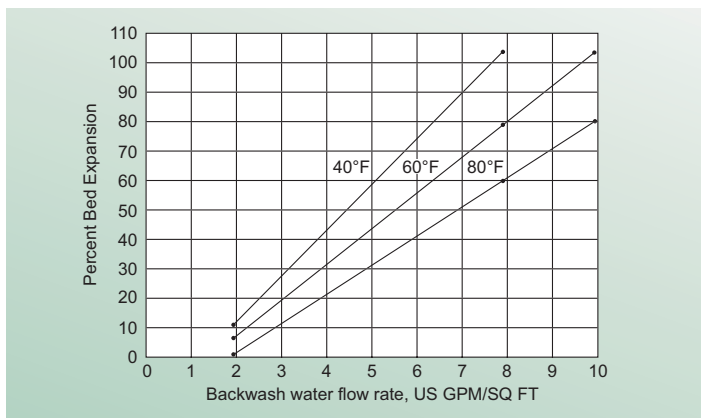


Fig. 1 Bed expansion vs. backwash flow rate for various water temperatures

Pressure Drop

Fig. 2 shows the expected pressure loss per foot of bed depth as a function of linear flow rate.

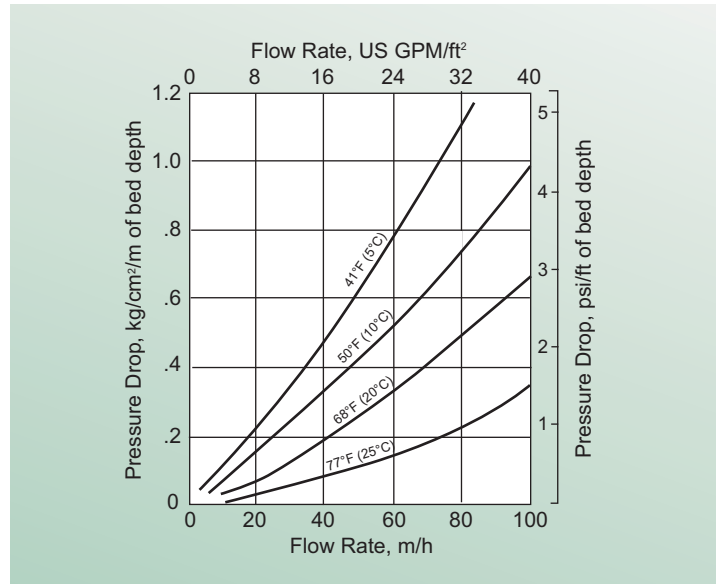


Fig. 2 Pressure Drop vs. Flow Rate



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