Aldex C-800 Series • Manufactured in Canada using no chlorinated solvents • Lowest TOC

C-800 Water Softening Resin Sodium Form

Tested and certified by WQA according to NSF/ANSI/CAN 61 and 372, NSF/ANSI 44 and CSA B483.1. *Aldex C-800 is a* ***high capacity, high quality, gel-type cation resin*** *capable of meeting the most exacting requirements of household, farm, commercial, institutional and industrial water softeners. It is supplied in the sodium form as black colored translucent beads in 1 cubic foot bags and larger bulk packages.*

Physical Chemical Properties

Resin Composition:	Sulfonated styrene / divinylbenzene copolymer
Ionic Form as Shipped:	Sodium (Na+)
Physical Form:	Black colored beads
Moisture Content:	45 to 49.9%
Total Capacity:	1.9 meq/ml minimum 41 kilograins as $CaCO_3$ per cubic foot
Odor and Taste:	None
Specific Gravity:	1.28
Net Weight (as shipped):	50 lbs per cubic foot
Particle Size:	16 to 50 mesh - Less than 0.5% through 50 mesh

Recommended Operating Conditions

Influent pH:	No restrictions
Maximum Temperature:	250 °F
Bed Depth:	Minimum 24” Normal 36”
Service Flow Rate:	1 to 5 US GPM per cubic foot
Backwash Flow Rate:	See Fig. 2
Regenerant:	Sodium Chloride (NaCl) or Potassium Chloride (KCl)
Regenerant Strength:	5 to 15%, usually 10%
Regenerant Flow Rate:	0.3 to 1.0 US GPM per cubic foot of resin
Regenerant Contact Time:	15 to 60 minutes
Regenerant Dosage Level:	2 to 15 lb per cubic foot
Slow Rinse (Displacement) Flow Rate:	0.3 to 1.0 US GPM per cubic foot of resin
Slow Rinse Volume:	20 USG per cubic foot resin
Fast Rinse Rate:	1.0 to 5.0 US GPM per cubic foot resin
Fast Rinse Volume:	30 USG per cubic foot resin

C-800 Features

No Chlorinated Solvents

The absence of chlorinated solvents in the manufacturing of Aldex C-800 results in very low TOC leakage.

Very low color, taste or odor

Aldex C-800 meets the requirements for paragraph 173.25 of the Food Additive Regulation of the U.S. Food and Drug Administration.

High Capacity

30,000 grains of softening capacity when regenerated with 15 lbs of NaCl per cubic. ft. and 20,000 grains with 6 lbs of NaCl per cubic.ft. ensuring high efficiency and low operating costs.

Long Life

Strong and durable beads ensure long service life.

Reliability

Over 40 years of actual field usage by thousands of customers demonstrate the reliability of Aldex C-800.

Safety Information

A material safety data sheet is available for Aldex C-800. Copies can be obtained from Aldex Chemical Co., LTD. Aldex C-800 is not a hazardous product and is not WHMIS controlled.

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.

Tested and certified by WQA according to NSF/ANSI/CAN 61 and 372, NSF/ANSI 44 and CSA B483.1. for materials safety only. For use restrictions, please visit www.wqa.org.

Since 1976

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C-800 Operating Suggestions

Iron

Aldex C-800 will remove most of the dissolved iron, can filter much of the suspended iron and may or may not remove organically bound iron from water.* When softeners are used to remove iron from the water, periodic cleaning of the bed, mechanically or with a chemical iron cleaner, may be necessary.

**The removal of iron was not evaluated in the WQA certification.*

Chlorine

All cation exchange resins are affected by chlorine and suffer degradation and swelling. It is recommended that the chlorine in the water be maintained below 1.0 ppm when using Aldex C-800.

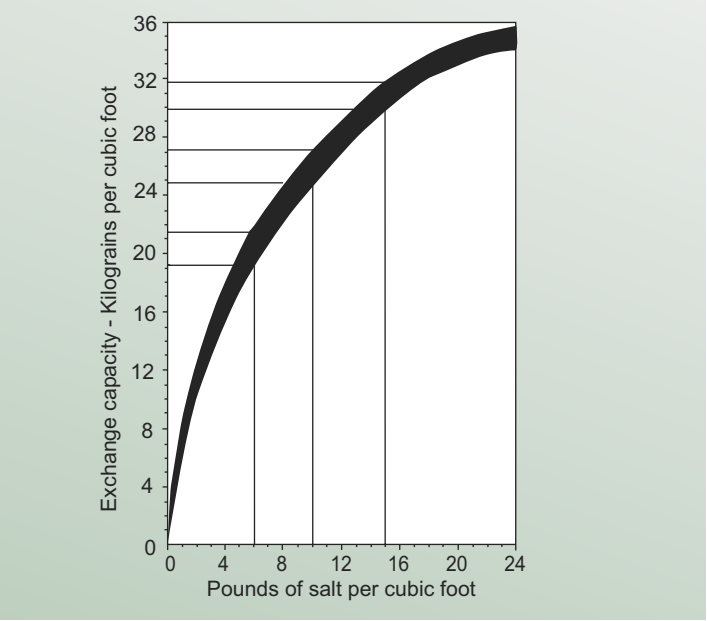

Fig. 1 Exchange capacity vs. regeneration level Sodium form C-800 Cation Resin

Backwash Characteristics

Aldex C-800 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. 2. 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.

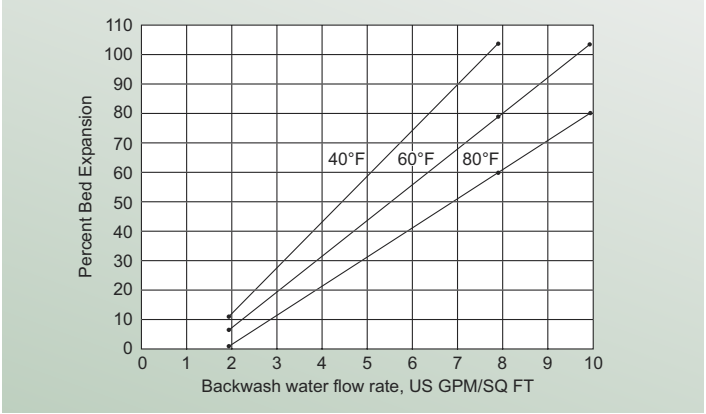

Fig. 2 Bed expansion vs. backwash flow rate for various water temperatures

Pressure Drop

Figure 3 shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.

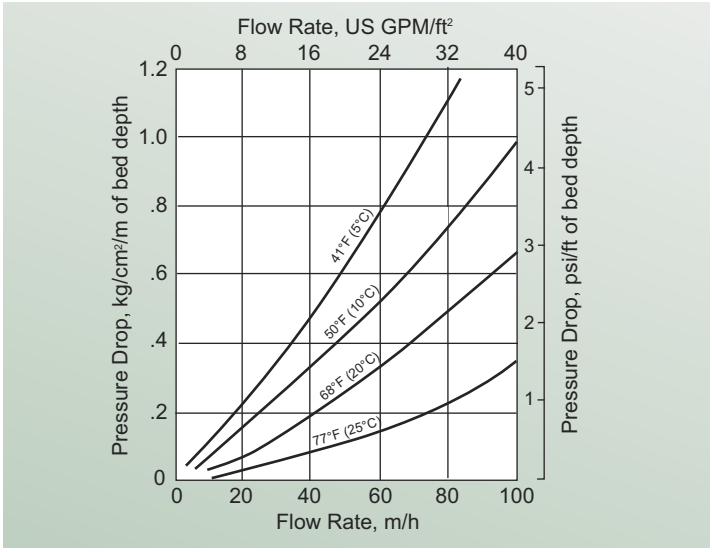

Fig. 3 Pressure Drop vs. Flow Rate

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Rev. ADX13643-0124