

## Aldex MP Series

# C-800MP Water Softening Resin Sodium Form

*Aldex C-800MP is a premium grade, high capacity, strongly acidic macroporous cation resin in the sodium form for use in water softening. Combines high capacity characteristics with the increased resistance to oxidation required for waters having high temperature, and/or high amounts of oxidizing agents such as chlorine, ozone, and hydrogen peroxide and/or high amounts of iron. Aldex C-800MP is more highly crosslinked than our standard gel type cation resin, Aldex C-800.*

## Physical Chemical Properties

Resin Composition:	Macroporous polystyrene crosslinked with divinylbenzene
Ionic Form as Shipped:	Sodium (Na+)
Physical Form:	Spherical particles
Moisture Content (Na+ Form):	46 to 51%
Total Capacity (Na+ Form):	1.8 eq/l
Odor and Taste:	None
Net Weight (as shipped):	50 lbs per cubic foot
Particle Size:	16 to 50 mesh
Uniform Coefficient	1.7 maximum

## Recommended Operating Conditions

Influent pH:	1 to 14
Maximum Temperature:	300 °F
Bed Depth:	Minimum 24"
Service Flow Rate:	2 US GPM per cubic foot
Backwash Flow Rate:	See Fig. 2
Regenerant:	Sodium Chloride (NaCl)
Regenerant Strength:	10%
Regenerant Flow Rate:	0.3 to 1.0 US GPM per cubic foot of resin
Regenerant Dosage Level:	See Fig. 3
Slow Rinse (Displacement) Flow Rate:	0.3 to 1.0 US GPM per cubic foot of resin
Rinse Water Requirements:	25 to 75 US GPM per cubic foot
Service Flow Rate:	2 US GPM per cubic foot
Exchange Capacity:	See Fig. 3
Reversible Swelling H <sup>+</sup> to Na <sup>+</sup>	3% maximum

## C-800MP Features

### Macroporous Structure

The macroporous structure of Aldex C-800MP make it possible to incorporate a higher level of divinylbenzene into the copolymer matrix than is possible with standard gel type resins. This results in a resin which has greater stability when exposed to oxidizing conditions such as high temperatures, iron and the presences of oxidizing agents.

### High Physical Stability

The macroporous structure with high divinylbenzene content and uniform particle size provides greater resistance to bead breakage.

### Low Pressure Drop

The uniform particle size of 98%+ in the 16-50 mesh size range gives Aldex C-800MP a lower pressure drop while maintaining the superior kinetics of standard mesh resin.

## Safety Information

A material safety data sheet is available for Aldex C-800MP. Copies can be obtained from Aldex Chemical Co., LTD. Aldex C-800MP 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.



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## Pressure Drop

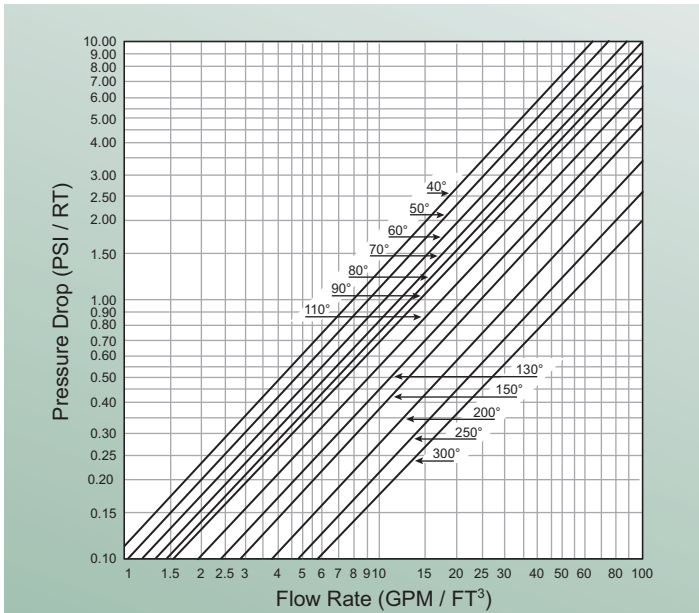


Fig. 1 Pressure Drop vs Flow Rate at various degrees Fahrenheit (F°)

## Capacity Data

Regeneration level lbs NaCl per cubic foot	Capacity kgr as CaCO <sub>3</sub> per cubic foot	Salt efficiency lbs NaCl per kgr removed cubic foot
4	19.0	11.5
6	23.0	12.8
8	25.3	13.6
10	28.1	14.5

Fig. 3 Capacity Data

## Backwash Characteristics

Aldex C-800MP should be backwashed for at least 10 minutes at a flow rate sufficient to cause 50% to 75% expansion of the resin bed.

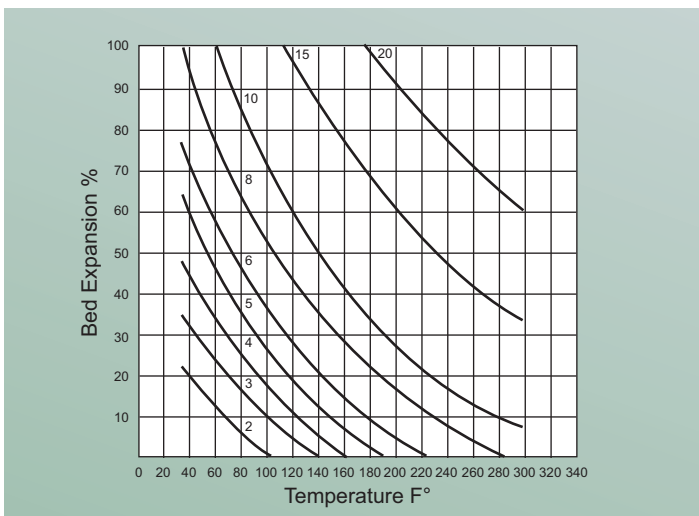


Fig. 2 Hydraulic expansion data parameter flow rate GPM / FT<sup>3</sup>



**Aldex Chemical Company, Ltd.** • 630 Laurent Street • Granby QC Canada J2G 8V1  
450 372 8844 • Fax 450 372 2566 • [info@aldexchemical.com](mailto:info@aldexchemical.com)

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