

## Aldex MP Series

# C-600 MP Water Softening Resin Sodium Form

Aldex C-600 MP water softening resin is a **premium grade, highly cross-linked macroporous strong acid cation resin supplied in the sodium (Na) form or hydrogen (H) form** upon request. Aldex C-600 MP has a pore structure that allows for high regeneration efficiency and low leakage to be achieved versus other highly cross-linked macroporous resins. Due to this structure Aldex C-600 MP has exceptional physical and chemical stability and is ideal for high temperature applications and is recommended for use in treating waters with high oxidant levels.

## Physical Chemical Properties

Resin Composition:	S-DVB M/P resin
Ionic Form as Shipped:	Na <sup>+</sup>
Functional Group:	HSO <sub>3</sub>
Physical Form:	Dark beads
Moisture Content (Na+ Form):	54 to 61%
Total Capacity (Na+ Form):	1.45 to 1.55 eq/l minimum 32.7 kilograins as per cubic foot
Odor and Taste:	None
Specific Gravity:	1.21 to 1.23
Net Weight (as shipped):	50 lbs per cubic foot
Particle Size:	16 to 50 mesh - Less than 0.5% through 50 mesh
pH limit:	0 to 14
Mean Diameter	650 ± 50 µm
Uniformity Coefficient	1.6 to 1.7

## Recommended Operating Conditions

Influent pH:	1 to 14
Maximum Temperature:	300°F
Temp Limit	
Hydrogen Form	250°F
Sodium Form	285°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>	6% maximum

## C-600 MP Features

### No Chlorinated Solvents

The absence of chlorinated solvents in the manufacturing of Aldex C-600 MP results in very low TOC leakage.

### Very low color, taste or odor

Aldex C-600 MP 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 foot and 20,000 grains with 6 lbs of NaCl per cubic foot ensuring high efficiency and low operating costs.

### Long Life

Strong and durable beads insure long service life.

### Reliability

Over 34 years of actual field usage by thousands of customers demonstrate the reliability of Aldex C-600 MP.

## Safety Information

A material safety data sheet is available for Aldex C-600 MP. Copies can be obtained from Aldex Chemical Co., LTD. Aldex C-600 MP 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

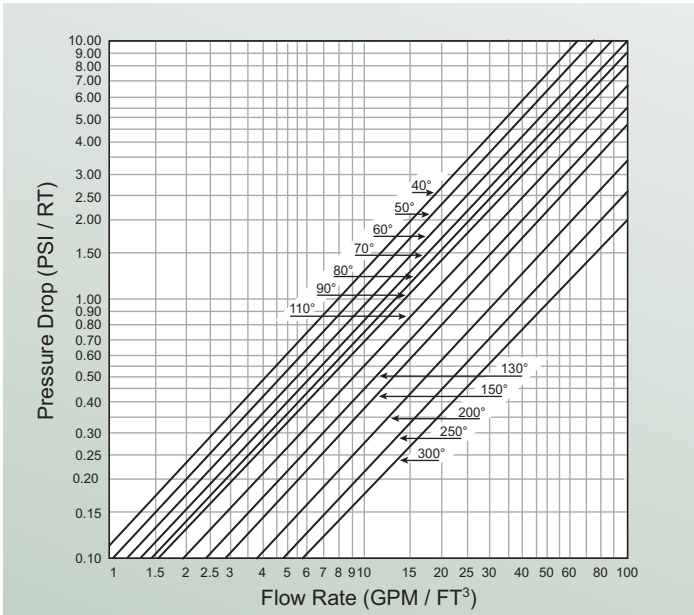


Fig. 1 Pressure Drop vs Flow Rate at various degrees Fahrenheit (F°)

## 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-600 MP should be backwashed for at least 10 minutes at a flow rate sufficient to cause 50% to 75% expansion of the resin bed.

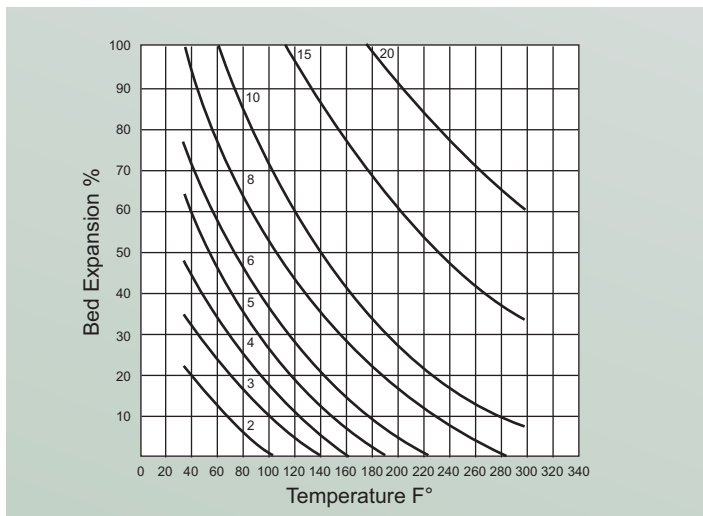


Fig. 2 Hydraulic expansion data parameter flow rate GPM / FT<sup>3</sup>



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