Aldex Mixed Bed Series

MB-1 Mixed Bed Resin

*Aldex MB-1 is a **highly regenerated mixed bed of a Type 1 strong base, gel anion exchange resin** and a strong acid sulfonated polystyrene cation exchange resin, **designed to provide ultra-high purity water**. The special blend of Type 1 anion exchange resins with nuclear grade cation exchange resins ensure high resistance, low TOC extractables and excellent regenerable capacities for inorganic versus organic ions. Aldex MB-1 is provided in a 60:40 anion to cation ratio (by volume).*

Physical Chemical Properties

Polymer Structure:	
Cation	Hydrogen form sulfonated polystyrene copolymer
Anion	Hydroxyl form strong base alkyl quaternary ammonium polystyrene copolymer
Ionic Form as Shipped:	Hydrogen / Hydroxide
Physical Form:	Spherical beads
Particle Size Distribution:	
16 mesh (U.S. Std.)	2% maximum
40 mesh	2% maximum
pH Range:	0 to 14
Moisture Content	60% maximum
Conversion to ionic Form:	
Cation - Hydrogen	99% minimum
Anion - Hydroxide	93% minimum
Chloride (Cl^-)	0.5% maximum
Carbonate (CO_3^{-2})	2% maximum
Sulfate (SO_4)	0.1% maximum
Shipping Weight:	43 lbs per cubic foot
Total Capacity:	
Cation (Na+ form)	1.9 meq/ml min.
Anion (Cl^- form)	1.3 meq/ml min.

Recommended Operating Conditions

Effluent Quality	Resin should provide effluent quality of 10-15 megohm but is dependent on many factors
Maximum Temperature:	
Regenerable	60°C
Non-regenerable	100°C
Slow Rinse (Displacement) Flow Rate:	2 to 10 US GPM per cubic foot

MB-1 Features

Very Low Metal Content

Special manufacturing conditions ensure very low metal content.

Elemental analysis, dry basis

Iron (Fe)	<100 ppm
Copper (Cu)	<50 ppm
Lead (Pb)	<50 ppm

Very Low TOC

Non solvent sulfonation and special manufacturing processes assure very low TOC leakage.

Uniform Particle Size

98% of all beads are in the minus 16 to plus 40 mesh range: giving a lower pressure drop while maintaining the superior kinetics of standard mesh size products.

Superior Physical Stability

90% plus sphericity and high crush strengths together with a very uniform particle size provide greater resistance to bead breakage while maintaining low pressure drop.

Safety Information

A material safety data sheet is available for Aldex MB-1. Copies can be obtained from Aldex Chemical Co., LTD. Aldex MB-1 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.

Resin Products Ltd
The Grainstore, Elmhurst Business Park, Lichfield, WS13 8EX
Tel: +44 (0) 121 796 6450 E:mail: enquiries@resin-products.com