



MBD-30

COLOR INDICATING MIXED BED RESIN

RESINTECH MBD-30 is a color indicating mixed bed resin. The anion resin is a Type I strongly basic gel resin with an indicator dye that changes from blue to light brown as the resin exhausts.

RESINTECH MBD-30 is designed to provide demineralized water with a resistivity in excess of 10 megohm. It is specially intended for use in cartridge applications with clear (see-through) housings. Such systems are typically designed without meters and rely on the changing color of the mixed bed resin to indicate exhaustion. In typical operation, there is a "safety line" at the exit end of the cartridge, and when the color change reaches that level, the cartridge is considered exhausted and exchanged for a fresh cartridge.

A constant supply of high purity water can be obtained by using two cartridges in series and allowing the first cartridge to completely change color. During this operation, the second cartridge ensures that the water leaving the system is of the highest purity. New cartridges are placed into the polishing position and the remaining cartridge is put into the "roughing" position. This ensures complete utilization of all the exchange capacity, which lowers operating costs while increasing average quality.

FEATURES & BENEFITS

- **COLOR INDICATION OF EXHAUSTION PROVIDES EASE OF USE**
- **EXTRAORDINARY VOLUME CAPACITY**
- **OPTIMIZED PARTICLE SIZE FOR USE IN CARTRIDGES**

PHYSICAL PROPERTIES

Functional Structure:

Cation – RSO_3^-H^+ (Hydrogen form sulfonated polystyrene copolymer)

Anion – $\text{R}_4\text{N}^+\text{OH}^-$ (Hydroxyl form strong base alkyl quaternary ammonium polystyrene copolymer)

Physical Form: Spherical Beads

Ionic Form: H/OH

Mesh Range: 90% -16 +45 (U.S. Std.)

Approximate Volume Ratio (as shipped):

Anion 1.00 parts

Cation 1.00 parts

Total Capacity:

Cation 1.9 meq/mL (Na^+ form)

Anion 1.25 meq/mL (Cl^- form)

Column Capacity:

0.45 meq/mL (10 kg/cu.ft.) min. to electrolyte breakthrough

Color Change: Blue to light brown as resin exhausts

Moisture Content: 65% maximum

pH Range: Stable 0 to 14

Percent Conversions to Ionic Form:

Cation H^+ 99% minimum

Anion OH^- 90% minimum

Approximate Shipping Weight:

43 lbs./cu.ft. (720 g/l)

Standard Packaging:

7 cu.ft. plastic lined fiber drums

Maximum Operating Temperature:

Non-regenerable 80° C* (175° F)

Regenerable 50° C (120° F)

*6 month typical resin life

Operating Flow Rate (Typical):

2 to 10 gpm/cu.ft.

Effluent Quality:

Greater than 10 megohm on properly pretreated tap water

***CAUTION:DO NOT MIX ION EXCHANGE RESIN WITH STRONG OXIDIZING AGENTS.** Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials, such as ion exchange resins. **Material Safety Data Sheets (MSDS)** are available for all ResinTech products and can be obtained on our web site at www.resintech.com or by calling ResinTech at 856-768-9600. We recommend you secure and study the pertinent MSDS for our products and any other products being used. The information in this bulletin are offered in good faith and are based on information we believe to be reliable, however no guarantee or warranty is implied or offered. It is the user's responsibility to use ResinTech products in a safe and legal manner and without violation of any patents. We assume no liability for the consequences of any such actions

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