

**RESINTECH MAG-MB** is a one-to-one volume mixture of CG8-H (a hydrogen form strong acid cation resin) and SBG1P-OH (a hydroxide form type 1 strong base anion resin). *MAG-MB* utilizes amber colored cation and anion components such that the final mixture is amber or golden in color. *RESINTECH MAG-MB* is intended for general purpose deionizing applications such as EDM operations or spot-free rinsing. *MAG-MB* is supplied ready to use with the cation component in the hydrogen form and the anion component in the hydroxide form.

# **FEATURES & BENEFITS**

# • TECHNICAL GRADE MIXED BED

Ideal for value sensitive operations that require high resistivity water

# BEST CHOICE FOR EDM OPERATIONS

Designed for use in Electrical Discharge Machining applications where clean water is essential to precision metal cutting

# CONTROLLED PARTICLE SIZE

16 to 50 mesh size provides a low pressure drop and superior kinetics

## OPTIMIZED CATION/ANION RATIO

Mixture of resin has optimum ratio of cation to anion components to deliver high capacity in metal working applications

For applications requiring very high resistivity, 10 bed volumes of rinse should be passed through the resin prior to use.



# **HYDRAULIC PROPERTIES**

#### **PRESSURE LOSS**

The graph above shows the expected pressure loss of *ResinTech MAG-MB* per foot of bed depth as a function of flow rate at various temperatures.



# BACKWASH

The graph above shows the expansion characteristics of *ResinTech MAG-MB* as a function of flow rate at various temperatures.

# **RESINTECH<sup>®</sup> MAG-MB**

# PHYSICAL PROPERTIES

Polymer Structure	Styrene/DVB
Polymer type	Gel
Functional Group	
Cation component	Sulfonic acid
Anion component	Trimethylamine
Physical Form	Spherical beads
Ionic Form as shipped	Hydrogen/Hydroxide
Column Capacity	>0.45 meq/mL
Volume ratio Cation/Anion	50/50 percent
Water Retention	55 to 60 percent
Approximate Shipping Weight	43 lbs per cu. ft.
Screen size distribution (U.S. Mesh)	16 to 50
Resin Color	
Cation component	Amber
Anion component	Amber
Note: Physical properties can be certified on a per lot b	oasis, available upon request.

# SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	120°F
Minimum bed depth	24 inches
Backwash expansion	50 to 100 percent
Maximum pressure loss	25 psi
Operating pH range	2 to 12 SU
Service flow rate	1 to 5 gpm per cu. ft.

Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.

For operation outside these guidelines, contact ResinTech Technical Support

# **APPLICATIONS**

# MAG-MB Throughput Capacity (Gal/cu. ft.)

TDS (ppm as CaCO <sub>3</sub> ) Conductivity (uS/cm)	no CO <sub>2</sub> or SiO <sub>2</sub>	5 ppm CO <sub>2</sub> or SiO <sub>2</sub>	10 ppm CO <sub>2</sub> or SiO <sub>2</sub>
2/5	83,876	23,964	13,979
5/12.5	33,550	16,775	11,183
10/25	16,775	11,183	8,388
20/50	8,388	6,710	5,592
50/125	3,355	3,050	2,796
100/250	1,678	1,598	1,525
200/500	839	818	799
500/1250	336	332	329
1,000/2500	168	167	166

Mixed Bed throughput capacity is based on the stated inlet conductivity of neutral pH waters and run to a 1 uS/cm endpoint. TDS is based on NaCl (2.5uS/cm/ppm as CaCO<sub>3</sub>). Different salts may have different contributions to TDS. Capacity is based on the anion component and is for virgin resin. Following the initial exhaustion and regeneration subsequent cycles will likely be shorter, depending on how skillfully the resins are separated, regenerated, and remixed.

## EDM

ResinTech MAG-MB is the preferred resin for EDM and other devices that require deionized water for cooling and rinsing. The ratio is specially formulated to provide long throughputs and hardness-free deionized water. ResinTech provides PEDI regeneration services for spent MAG-MB, allowing the resin to be used over hundreds or thousands of exhaustion and regeneration cycles.

### **SPOT FREE RINSE**

*RESINTECH* MAG-MB is used in a variety of spot free rinse applications to remove hardness, silica, and other ions that might cause spotting upon drying. The deionized water produced by MAG-MB has lower surface tension which helps prevent beading of water droplets on clean surfaces. MAG-MB has a unique golden color that reflects its purity and high capacity.

## WINDOW WASHING

**RESINTECH MAG-MB** is ideal for window washing and other washing applications that require both deionized water and silica reduction to prevent spotting during drying. MAG-MB is made with hydrogen form cation resin and hydroxide form anion resin blended to provide long throughput capacity to exhaustion.

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 Inc. products. To obtain a copy, contact your local ResinTech sales representative or our corporate headquarters. They contain important health and safety information. That information may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used. These suggestions and data are based on information we believe to be reliable. They are offered in good faith. However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions. **RESINTECH** is a registered trademark @ of RESINTECH INC. MAG-MB rev 1.3