

RESINTECH SBMP1 is a chloride form type 1 macroporous strong base anion resin. *SBMP1* is a high solids anion resin with a macroporus structure. This results in high capacity, high resistance to oxidation, and good stability in the presence of physical and chemical stressors. *RESINTECH SBMP1* is intended for use in chloride and hydroxide form applications where physical strength and resistance to oxidative damage is more important than high operating capacity. *SBMP1* is especially well suited for high flow rate and high temperature polishing applications. *SBMP1* is available in the chloride form or in the hydroxide form (when ordered as *SBMP1-OH*).

FEATURES & BENEFITS

- **MACROPOROUS STRUCTURE**

Gives greatly increased life in stressful applications where resin degradation due to thermal and oxidative effects is anticipated

- **ORGANIC FOULING RESISTANCE**

Unique macroporous structure allows greater elution of organic molecules during regeneration

- **SUPERIOR PHYSICAL STABILITY**

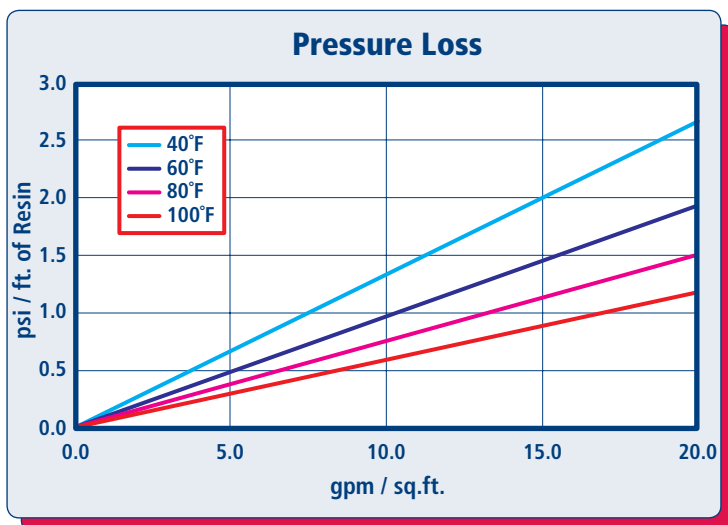
98% plus sphericity and high crush strengths together with carefully controlled particle distribution provides long life and low pressure drop

- **COMPLIES WITH US FDA REGULATIONS**

Conforms to paragraph 21CFR173.25 of the Food Additives Regulations of the US FDA

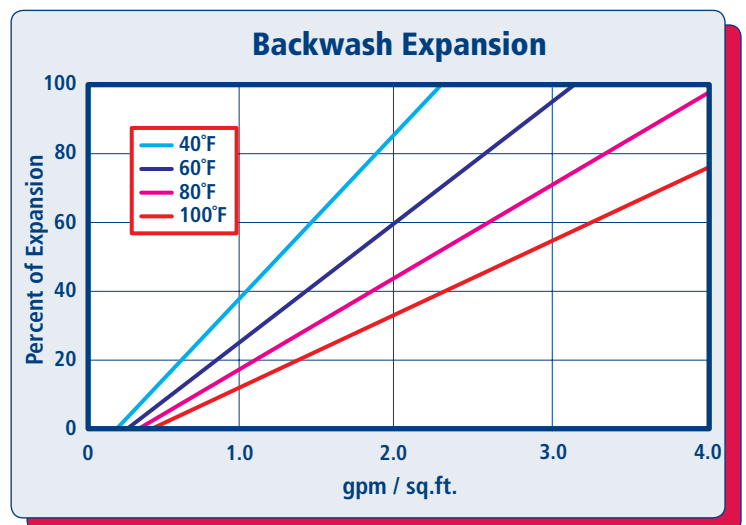
Prior to first use for potable water, resin should be backwashed for a minimum of 20 minutes, followed by 10 bed volumes of downflow rinse.

HYDRAULIC PROPERTIES



PRESSURE LOSS

The graph above shows the expected pressure loss of *ResinTech SBMP1* per foot of bed depth as a function of flow rate at various temperatures.



BACKWASH

The graph above shows the expansion characteristics of *ResinTech SBMP1* as a function of flow rate at various temperatures.

PHYSICAL PROPERTIES

Polymer Structure	Styrene/DVB
Polymer Type	Macroporous
Functional Group	Trimethylamine
Physical Form	Spherical beads
Ionic Form as shipped	Chloride or Hydroxide
Total Capacity	
Hydroxide form	>0.9 meq/mL
Chloride form	>1.1 meq/mL
Water Retention	
Hydroxide form	64 to 73 percent
Chloride form	50 to 63 percent
Approximate Shipping Weight	
Hydroxide form	40 lbs./cu.ft.
Chloride form	42 lbs./cu.ft.
Swelling, Cl to OH	18 to 25 percent
Screen Size Distribution (U.S. mesh)	16 to 50
Maximum Fines Content (<50 mesh)	1 percent
Minimum Sphericity	95 percent
Uniformity Coefficient	1.6 approx.
Resin Color	Tan to brown

Note: Physical properties can be certified on a per lot basis, available upon request

SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
Hydroxide form	140°F
Chloride form	170°F
Minimum bed depth	24 inches
Backwash expansion	25 to 50 percent
Maximum pressure loss	20 psi
Operating pH range	0 to 14 SU
Regenerant Concentration	
Hydroxide cycle	2 to 6 percent NaOH
Salt cycle	2 to 10 percent NaCl
Regenerant level	4 to 10 lbs./cu.ft.
Regenerant flow rate	0.25 to 1.0 gpm/cu.ft.
Regenerant contact time	>40 minutes
Displacement flow rate	Same as dilution water
Displacement volume	10 to 15 gallons/cu.ft.
Rinse flow rate	Same as service flow
Rinse volume	35 to 60 gallons/cu.ft.
Service flow rate	1 to 10 gpm/cu.ft.

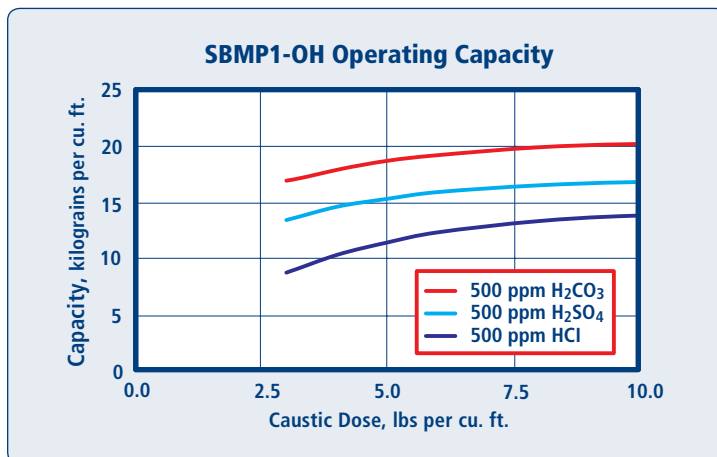
Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.

For operation outside these guidelines, contact ResinTech Technical Support

APPLICATIONS

DEMINEERALIZATION

RESINTECH SBMP1-OH can be used as the anion component in a variety of demineralization applications where a hydroxide form anion resin is coupled with a hydrogen form cation resin and the highest possible durability is desired. SBMP1-OH is ideal for high flow rate polishers and where high resistance to mechanical, thermal, and oxidative stresses is required.



Capacity based on 500 ppm of stated acid (as CaCO₃). Capacity based on 36 inch bed depth, flow rate of 2 to 4 gpm per cu. ft. and greater than 40 minute caustic regenerant injection time. No engineering downgrade has been applied.

RADWASTE

RESINTECH SBMP1 is ideally suited for radwaste applications requiring the removal of radioactive anions, especially when the feed is significantly radioactive. The high crosslinking content of SBMP1 gives it improved resistance to chemical damage caused by ionizing radiation. Structural integrity is maintained up to approximately 1 x 10⁹ rads exposure.



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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.

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