



SBG1P

**ANION EXCHANGE RESIN
TYPE 1 POROUS GEL
Cl OR OH FORM**

RESINTECH SBG1P is a chloride form type 1 porous gel strong base anion resin. SBG1P has higher moisture content and lower ion exchange density than SBG1. This results in higher operating capacity, better chemical efficiency and improved resistance to fouling. RESINTECH SBG1P is intended for use in the hydroxide form for all types of deionizing systems as well as in the chloride form for removal of contaminants such as nitrate, arsenate, chromate, uranium, etc. SBG1P-OH is especially well suited for use in working mixed beds. SBG1P is available in the chloride form or in the hydroxide form (when ordered as SBG1P-OH).



**NSF/ANSI-61 CERTIFIED FOR
MATERIAL SAFETY**
WQA Gold Seal Certified when ordered as SBG1P-HP

FEATURES & BENEFITS

• HIGH OPERATING CAPACITY

High porosity type 1 anion provides high regeneration efficiency and high throughput per pound of caustic regenerant

• ORGANIC FOULING RESISTANCE

Porous structure allows greater elution of organic molecules during regeneration

• SUPERIOR PHYSICAL STABILITY

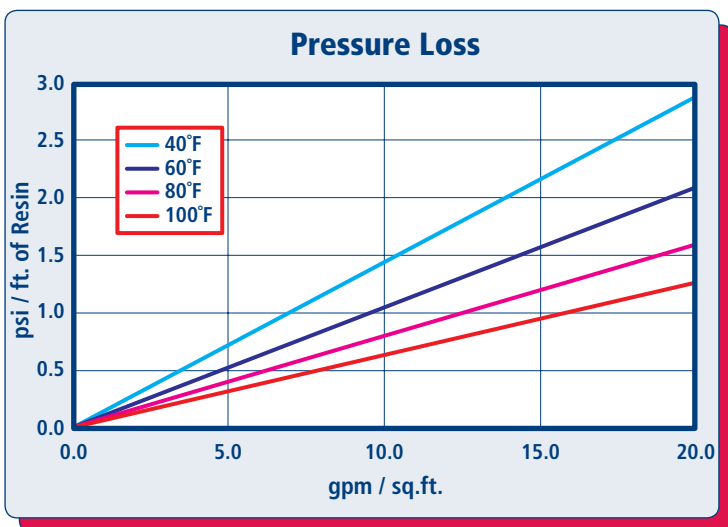
93% plus sphericity and high crush strengths together with carefully controlled particle distribution provides long life and low pressure drop

• COMPLIES WITH US FDA REGULATIONS

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

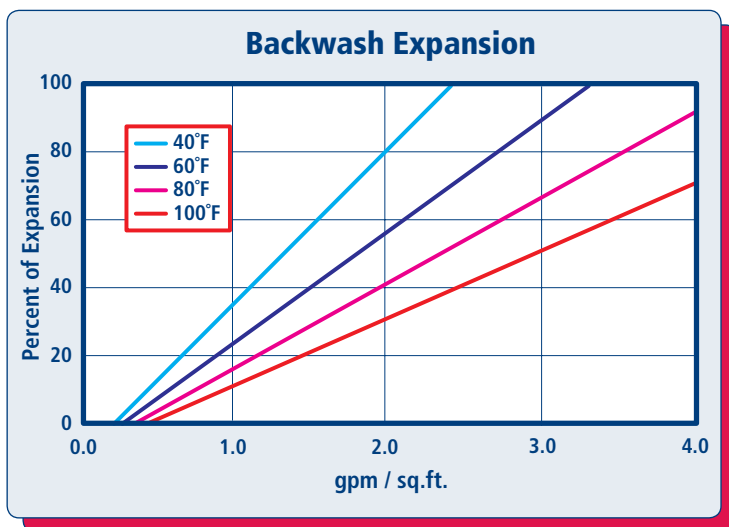
Prior to first use for potable water, resin should be backwashed for a minimum of 20 minutes, followed by 10 bed volumes of downflow rinse.

HYDRAULIC PROPERTIES



PRESSURE LOSS

The graph above shows the expected pressure loss of ResinTech SBG1P per foot of bed depth as a function of flow rate at various temperatures.



BACKWASH

The graph above shows the expansion characteristics of ResinTech SBG1P as a function of flow rate at various temperatures.

PHYSICAL PROPERTIES

Polymer Structure	Styrene/DVB
Polymer Type	Gel
Functional Group	Trimethylamine
Physical Form	Spherical beads
Ionic Form as shipped	Chloride
Total Capacity	
Hydroxide form	>1.0 meq/mL
Chloride form	>1.3 meq/mL
Water Retention	
Chloride form	52 to 58 percent
Approximate Shipping Weight	
Hydroxide form	41 lbs./cu.ft.
Chloride form	43 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	93 percent
Uniformity Coefficient	1.6 approx.
Resin Color	White to amber

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.

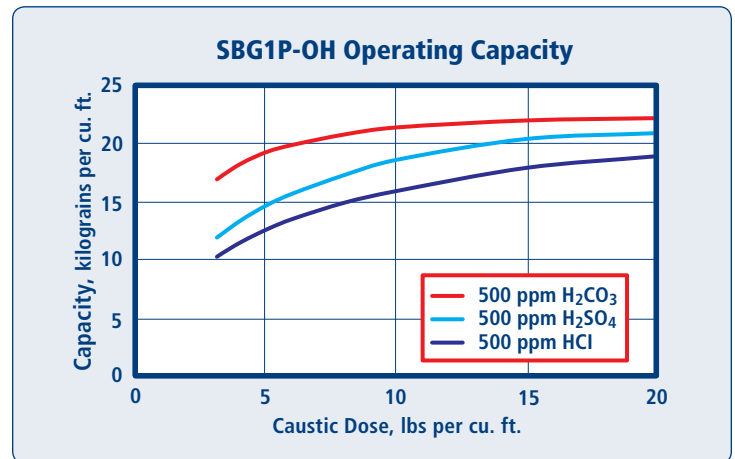
Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.

For operation outside these guidelines, contact ResinTech Technical Support

APPLICATIONS

DEMINERALIZATION

RESINTECH SBG1P-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. Common configurations include separate beds, mixed beds and other more complicated arrangements. Regeneration is accomplished with dilute sodium hydroxide, heated when low silica leakage is desired.



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

DESILICIZER

RESINTECH SBG1P-OH can be used following a water softener as a desilicizer to remove silica along with other anions. Regeneration is accomplished with sodium hydroxide. Feedwater must be softened to prevent hardness scaling of the resin. This process removes all bulk anions and replaces them with hydroxides, increasing both the pH and alkalinity. This limits the applicability to waters with low or modest TDS.



East Coast - West Berlin, NJ p:856.768.9600 • Midwest - Chicago, IL p:708.777.1167 • West Coast - Los Angeles, CA p:323.262.1600

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.

SBG1P 0614