PRODUCT SPECIFICATION SHEET

MAGNA

SBG1-UPS

STRONG BASE ANION

UNIFORM PARTICLE SIZE
TYPE I ANION
POLYSTYRENIC GEL
CHLORIDE FORM

ResinTech SBG1-UPS is a uniform particle size type 1 gel strong base anion resin in chloride form. The uniform beads and somewhat smaller harmonic mean size yield minimal pressure loss and better regeneration efficiency compared to resins with Gaussian size distribution. SBG1-UPS is intended for use in industrial applications that require a high solids strong base anion resin and is recommended for countercurrently regenerated systems such as packed beds.

APPLICATIONS

- Demineralization
- Packed Beds
- Trace Contaminants (U, Cr, As, Se, F, ClO_4, ClO_3)
- Nitrate Removal
- Sulfate Removal

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Gel
Ionic Form	Chloride
Fuctional Group	Trimethylamine
Physical Form	Spherical Beads
Particle Size	20 to 40 US Mesh (400 - 841 µm)
% < 50 mesh (300µm)	< 0.5% minus 50
Minimum Sphericity	95%
Uniformity Coefficient	1.25
Reversible Swelling	Cl to OH 18% to 22%
Temp Limit	170°F (77°C)
Capacity (meq/mL)	1.4
Moisture Retention	42% to 51%
Shipping Weight	43 - 45 lbs/ft³ (689 - 721 g/L)
Color	White to Yellow
Regenerability	Yes
Uniform Particle Size	Yes

PACKAGING OPTIONS

- 500 ml samples
- 1 ft³ bags
- 1 ft³ boxes
- 1 ft³ drums
- 7 ft³ drums
- 42 ft³ supersacks

MADE IN AMERICA

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

Revision 1.0

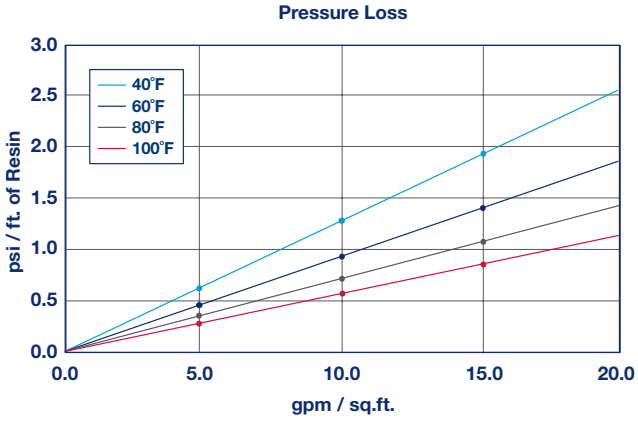
CORPORATE HEADQUARTERS 1801 Federal Street Camden, NJ 08105 USA PHONE 856.768.9600 FAX 856.768.9601 EMAIL info@resintech.com WEB resintech.com

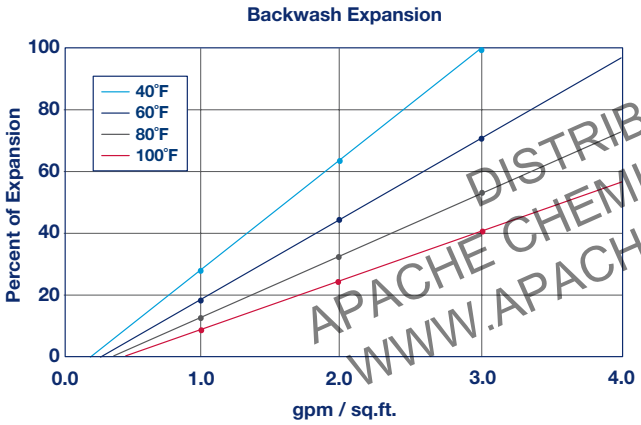
MAGNA

SBG1-UPS

STRONG BASE ANION

UNIFORM PARTICLE SIZE
TYPE I ANION
POLYSTYRENIC GEL
CHLORIDE FORM





PACKED BEDS

ResinTech SBG1-UPS has a very narrow particle size range. The uniformity allows a slightly smaller bead size to be used which results in faster exchange of ions, more efficient regeneration and lower leakage. SBG1-UPS is ideal for packed beds and other types of countercurrent ion exchangers where consistent operation is important cycle after cycle. Higher void space and minimal fine mesh beads provides low pressure loss and helps prevent channeling and other distribution problems. Packed beds typically have limited freeboard (only a few inches with the resin in the swollen form).

TRACE CONTAMINANT REMOVAL (U, CR, AS, SE, CLO_4)

ResinTech SBG1-UPS has high capacity and can be used to remove a variety of trace contaminants, even when that contaminant is not highly preferred compared to the other bulk ions in the feedwater. Useful capacities are obtained when the feedwater TDS is substantially less than the resin's internal TDS. Uranium, chromate, and perchlorate are particularly well removed. Arsenate and selenate are well removed but can be chromatographically displaced by sulfate and other ions.

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

Revision 1.0

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

CORPORATE HEADQUARTERS 1801 Federal Street Camden, NJ 08105 USA PHONE 856.768.9600 FAX 856.768.9601 EMAIL info@resintech.com WEB resintech.com