

MAGNA

SBG2-UPS

STRONG BASE ANION

UNIFORM PARTICLE SIZE
 TYPE II ANION
 POLYSTYRENIC GEL
 CHLORIDE FORM

ResinTech SBG2-UPS is a uniform particle size type 2 strong base anion gel 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. SBG2-UPS is intended for use in industrial applications that require a type 2 strong base anion resin and is recommended for countercurrently regenerated systems such as packed beds.

APPLICATIONS

- Dealkalizer
- Demineralization
- Trace Contaminants (U, Cr, As, Se, F, ClO₄, ClO₃)
- Nitrate Removal
- Sulfate Removal

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

Polymer Matrix	Styrenic Gel
Ionic Form	Chloride
Functional Group	Dimethylethanolamine
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 12% to 15%
Temp Limit	170°F (77°C)
Capacity (meq/mL)	1.4
Moisture Retention	40% to 53%
Shipping Weight	43 - 45 lbs/ft ³ (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

MAGNA SBG2-UPS

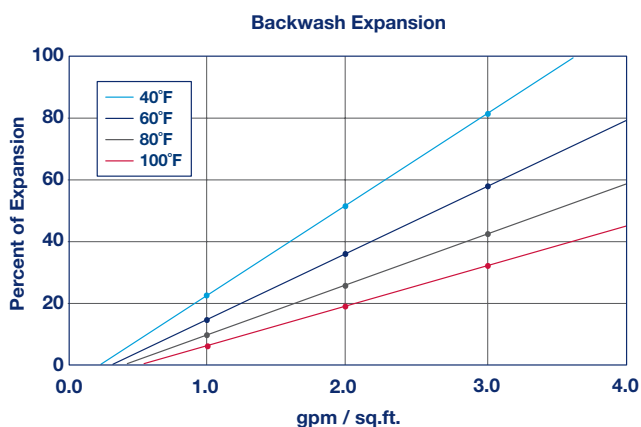
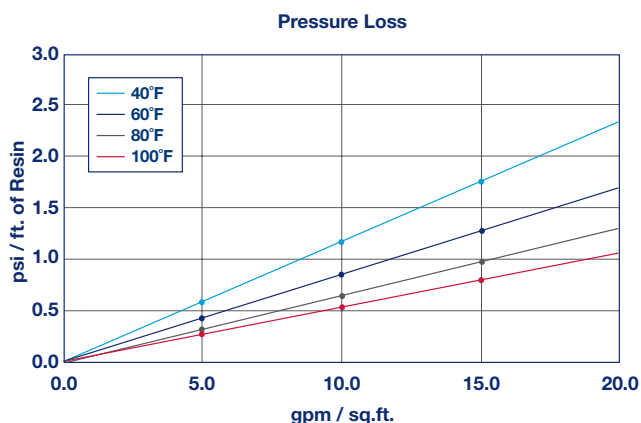
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TRACE CONTAMINANT REMOVAL (U, CR, AS, SE, CLO₄)

ResinTech SBG2-UPS has high capacity in the chloride form 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 feed 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.

NITRATE REMOVAL

ResinTech SBG2-UPS can be used in the chloride cycle to reduce nitrates along with sulfates. Although high operating capacities and high salt efficiency can be obtained, there is also the possibility of nitrate dumping. Use of chloride form anion resin reduces the pH of the product water during the early part of the exhaustion cycle. When treating waters with high hardness the brine dilution and displacement waters should be softened and a low hardness salt used to prevent scaling due to calcium sulfate precipitation during regeneration.

SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	170°F
Chloride form	
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