

PRODUCT SPECIFICATION SHEET

MAGNA SBG1P-UPS

STRONG BASE ANION

UNIFORM PARTICLE SIZE
TYPE I ANION
POLYSTYRENIC POROUS GEL
CHLORIDE FORM

ResinTech SBG1P-UPS is a uniform particle size chloride form type 1 porous gel strong base anion resin. The uniform beads and somewhat smaller harmonic mean size yield minimal pressure loss and better regeneration efficiency compared to resins with Gaussian size distribution. SBG1P-UPS is intended for use in industrial applications that require a porous strong base anion resin and is recommended for countercurrently regenerated systems such as packed beds.

APPLICATIONS

- Demineralization
- Packed Beds

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

Polymer Matrix	Styrenic Porous Gel
Ionic Form	Chloride
Functional 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)	1.3
Moisture Retention	51% to 60%
Shipping Weight	42 - 44 lbs/ft ³ (673 - 705 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

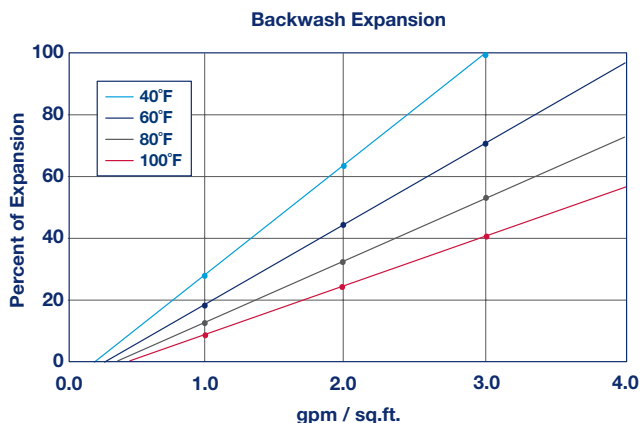
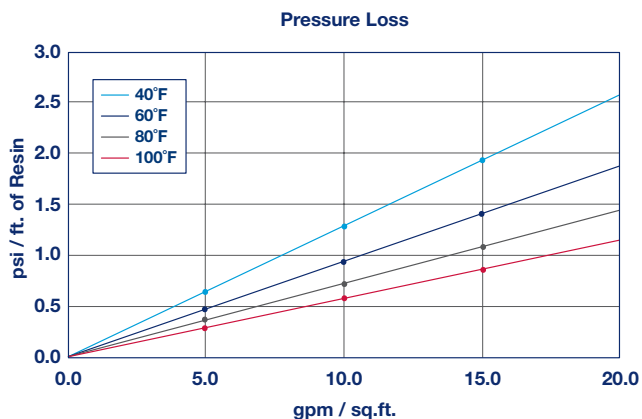
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LAYERED BEDS

ResinTech SBG1P-UPS has a very narrow particle size range. The uniformity and absence of very small beads makes SBG1P-UPS ideal for layered beds where it is important that the two resin layers stay separate from each other. For layered bed applications SBG1P-UPS should be paired with WBMP-UPS. The strong base layer is usually about 70% of the total bed volume. Layered beds are normally countercurrently regenerated.

DEMINEALIZATION

ResinTech SBG1P-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. SBG1P-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 provide low pressure loss and help prevent channeling and other distribution problems. Packed beds typically have limited freeboard (only a few inches with the resin in the swollen form).

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

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