PRODUCT SPECIFICATION SHEET

SBG2-HP

STRONG BASE ANION

HIGH-PURITY GRADE
TYPE II ANION
POLYSTYRENIC GEL
CHLORIDE FORM

SBG2-HP is a high purity chloride form type 2 gel strong base anion resin. The HP (high purity) designation means it is Gold Seal Certified by the WQA for use in potable water applications. The amine used in type 2 anion resins makes them less prone to taste and odor than type 1 resins. SBG2-HP is intended for potable water use for the removal of contaminants such as nitrate, arsenate, chromate, uranium, etc.

APPLICATIONS

- Trace Contaminants (U, Cr, As, Se, F, ClO_4, ClO_3)
- Chromate Removal

NOTE: NSF/ANSI-61 compliance requires conditioning with a minimum 20 bed volume rinse prior to first use.

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Gel
Ionic Form	Chloride
Functional Group	Dimethylethanolamine
Physical Form	Spherical Beads
Particle Size	16 to 50 US Mesh (297 - 1190 µm)
% < 50 mesh (300µm)	< 1%
Minimum Sphericity	93%
Uniformity Coefficient	1.6
Reversible Swelling	Cl to OH 12% to 15%
Temp Limit	170°F (77°C)
Capacity (meq/mL)	1.4
Moisture Retention	36% to 45%
Shipping Weight	43 - 45 lbs/ft^3 (689 - 721 g/L)
Color	White to Yellow
Regenerability	Yes

CERTIFICATIONS

- WQA Gold Seal*
- Kosher Certified
- FDA Compliance**

PACKAGING OPTIONS

- 500 ml samples
- 1 ft^3 bags
- 1 ft^3 boxes
- 1 ft^3 drums
- 7 ft^3 drums
- 42 ft^3 supersacks

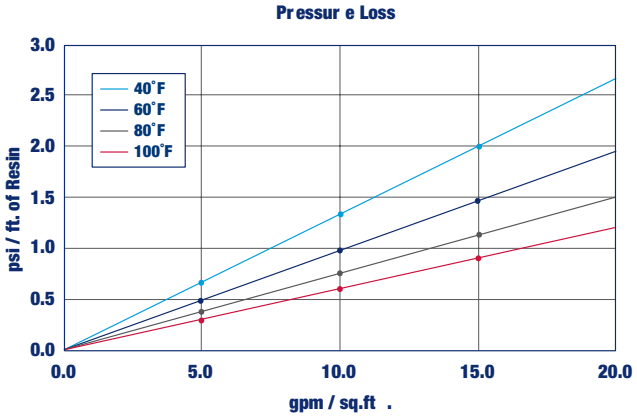
* NSF/ANSI/CAN 61: Drinking Water System Components - Health Effects
** Paragraph 21CFR173.25 of the Food Additives Regulations of the US FDA

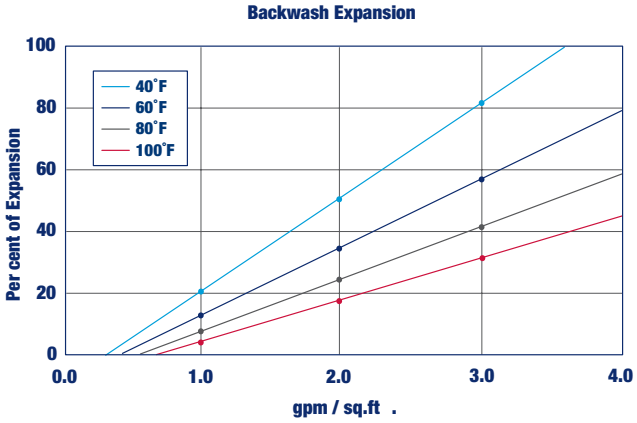
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TRACE CONTAMINANT REMOVAL (U, Cr, As, Se, ClO_4)

SBG2-HP 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.

NITRATE REMOVAL

SBG2-HP can be used in the chloride cycle to reduce nitrates along with sulfates. Regeneration is accomplished with sodium chloride brine, in a fashion similar to water softeners. 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 pH during the early portion 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 during regeneration.

SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
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 intend ed to be absolute minimums or maximums.
For operation outside these guidelines, contact Crystal Quest Technical Support

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