SBG2-UPS

Grade: Standard

Strong base type 2 anion resin, porous styrene/DVB gel, uniform particle size, chloride form

ResinTech SBG2-UPS is a chloride form type 2 gel strong base anion resin in uniform particle size. Type 2 anion resins have lower selectivities and therefore higher chemical efficiency and better resistance to fouling than type 1 anion resins. SBG2-UPS is intended for industrial use in chloride form for dealkalization and removal of contaminants such as nitrate, arsenate, chromate, uranium, etc., and can also be regenerated into the hydroxide form and used in various demineralization configurations.

FEATURES & BENEFITS

- High operating capacity
- Multiple contaminant removal
- Superior physical stability
- Complies with US FDA regulations

APPLICATIONS

- Dealkalizer
- Demineralization / DI
- Trace Contaminant Removal

PHYSICAL PROPERTIES

Polymer Matrix	Styrene/DVB
Polymer Type	Gel
Ionic Form (as shipped)	Chloride (Cl^-)
Functional Group	Dimethylethanolamine
Physical Form	Spherical Beads
Uniformity Coefficient	1.25
Effective Particle Size	625 +100 µm
< 50 mesh (300 µm) %	<0.5%
Minimum Sphericity (%)	95
Reversible Swelling	8 to 12% (Cl → OH)
Capacity (meq/mL)	1.40
Moisture Retention (%)	40 to 53
Shipping Weight	43 - 45 lbs/cu.ft. (689 - 721 g/L)
Color	White To Amber

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	170°F (77°C)
Maximum Pressure Loss	20 psi (138 kPa)
Backwash Expansion (%)	25 - 50
Flow Rate	
Working Service	1-10 gpm/cu.ft. (8-80 BV/h)

Conforms to §21CFR173.25 of the USFDA Food Additives Regulations

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

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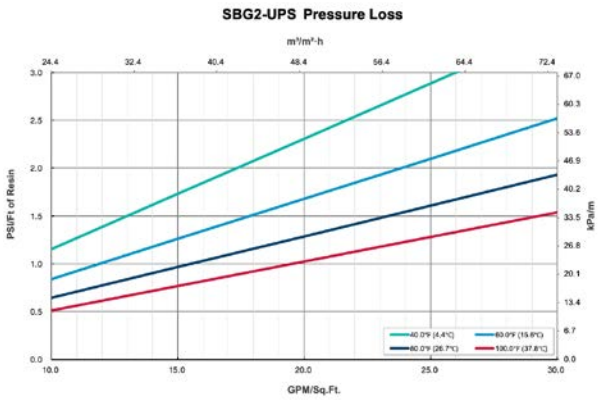
REGENERATION DETAILS

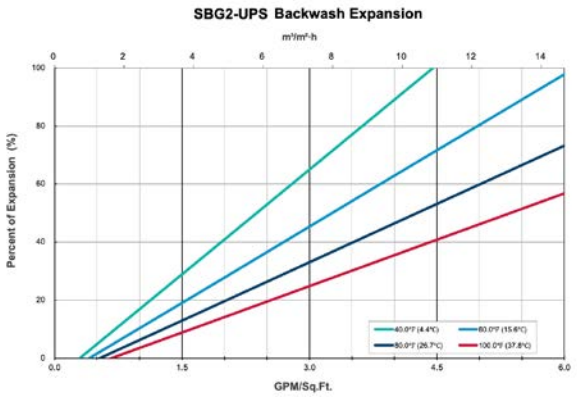
Salt Cycle (NaCl)	2% - 10%	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Displacement Flow Rate	Same as dilution water	Rinse Volume	Minimum of 30 gals/cu.ft. (4 BV)

PRESSURE LOSS



The graph above shows the expected pressure loss of ResinTech SBG2-UPS per foot of bed depth as a function of flow rate at various temperatures.

BACKWASH EXPANSION



The graph above shows the expansion characteristics of ResinTech SBG2-UPS as a function of flow rate at various temperatures.

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

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 feed water. Useful capacities are obtained when the feed TDS is substantially less than the resins 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.

SULFATE REMOVAL

High capacity chloride form resins such as ResinTech **SBG2-UPS** have high affinity for divalent anions such as sulfate, provided the feed water TDS is not greater than about 5,000 ppm. At higher TDS the resin loses its affinity for sulfate and begins to prefer chloride. Regeneration is accomplished with sodium chloride brine in a fashion similar to a water softener.

DEALKALIZER

ResinTech **SBG2-UPS** can be used in the chloride cycle to remove bicarbonate alkalinity. The exchange is somewhat unfavorable and results in modest capacity and substantial alkalinity leakage. When the dealkalizer follows a water softener and when low hardness salt is used, a small amount of sodium hydroxide can be mixed in with the salt to obtain higher operating capacity and lower leakage.

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CERTIFICATIONS

Meets NSF/ANSI/CAN 61

Meets NSF/ANSI/CAN 372

REACH Registered

PACKAGING

Standard

42 cu.ft. Supersack | 7 cu.ft. Drum
200L Drum | 1000L Supersack

Metric

1 cu.ft. Bag | 5 cu.ft. Drum
25L Bag | 140L Drum

Shipping Weight

43 - 45 lbs/cu.ft. (689 - 721 g/L)

MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets (MSDS) are available for all products on the ResinTech website. They contain important health and safety information that 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.

Safety Data Sheets (SDS) are available at resintech.com

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