SPECIALTY RESIN

PROSELECT™ GENERAL PURPOSE ANION

ProSelect General Purpose Anion Resin is designed for multi-bed regenerable systems and dealkalizers. It has the highest alkalinity loading capacity of all anion resin types. But what truly makes this a superior resin is its ability to resist organic fouling from water sources where naturally occuring organics are found (ie. surface water). This special formulation makes ProSelect General Purpose easier to regenerate and a longer lasting resin as well.

FEATURES

- High operating capacity
- Superior physical stability
- Uniform particle size, low pressure drop
- Organic fouling resistance
- Multiple contaminant removal
- Complies with US FDA regulations (paragraph 21 CFR173.25) for potable water applications

Suggested Operating Conditions

Maximum Temperature	
Chloride Form	170°F (77°C)
Minimum Bed Depth	24 inches
Backwash Expansion	25 to 50%
Maximum Pressure Loss	20 psi
Operating pH Range	0 to 14 SU
Regenerant Concentration	
Hydroxide Cycle	2 to 6% NaOH
Salt Cycle	2 to 10% NaCl
Regenerant Level	4 to 10 lb/cu.ft.
Regenerant Flow Rate	0.25 to 1.0 gpm/cu.ft.
Regenerant Contact Time	> 40 minutes
Displacement Flow Rate	Same as dilution flow
Displacement Volume	10 to 15 gal/cu.ft
Rinse Flow Rate	Same as service flow
Rinse Volume	35 to 60 gal/cu.ft.
Service Flow Rate	1 to 10 gpm/cu.ft.

Packaging Options

500 ml samples, 1 cu.ft. bags, 1 cu.ft. boxes, 1 cu.ft. drums, 7 cu.ft. drums, 42 cu.ft. supersacks

Part Number

Chloride Form	ER20004

Physical Properties

Polymer Matrix	Styrenic Gel
Ionic Form	Chloride
Functional Group	Dimethylethanolamine
Physical Form	Spherical beads
Color	White to yellow
Particle Size	16 to 50 US Mesh (297 to 1190 µm)
% < 50 mesh (300 µm)	< 1%
Minimum Sphericity	93%
Uniformity Coefficient	1.6
Reversible Swelling	Cl to OH 12% to 15%
Temperature Limit	170°F (77°C)
Capacity	1.4 meq/ml
Moisture Retention	36 to 45%
Regenerability	Yes
Approx. Shipping Weight	43 to 45 lb/cu.ft. (689 to 721 g/l)

CAUTION: DO NOT MIX ION EXCHANGE RESINS WITH STRONG OXIDIZING AGENTS. Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials such as ion exchange resins.

Note: These suggestions and data are based on information we believe to be reliable. However, we do not make any guarantee or warranty. We caution against using these products in any unsafe manner or in violation of any patents. Further, we assume no liability for the consequences of any such actions.

SAFE WATER TECHNOLOGIES, INC.
996 BLUFF CITY BOULEVARD, ELGIN, IL 60120 USA
TELEPHONE 847 888 6900 • FACSIMILE 847 888 6924
E MAIL: info@swtwater.com • WEB SITE: www.swtwater.com

FORM 0073
EFFECTIVE
APRIL 2023

SPECIALTY RESIN

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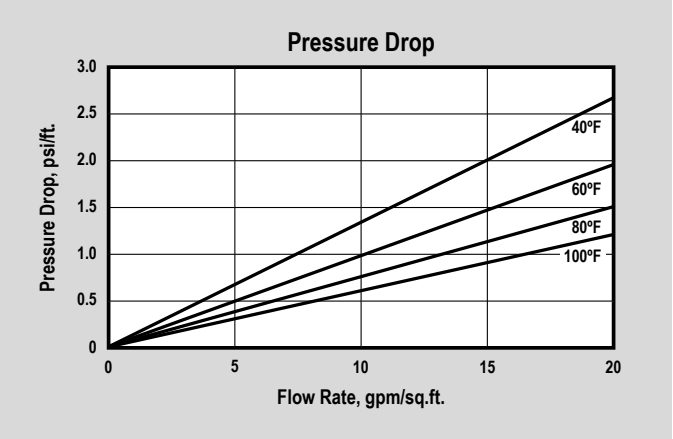
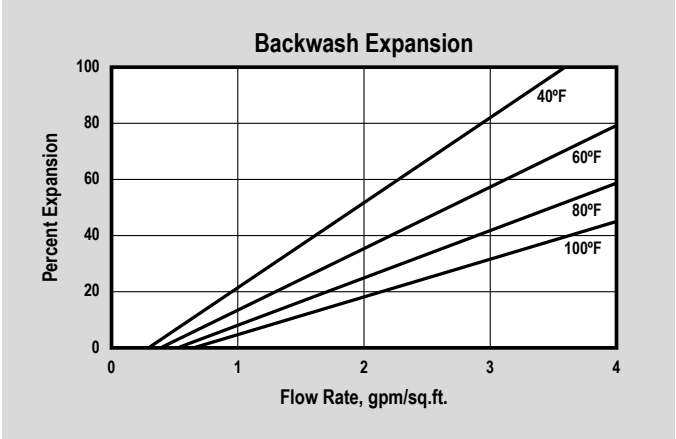


PRESSURE DROP — *The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.*



BACKWASH — *The graph above shows the expansion characteristics as a function of flow rate at various temperatures.*

APPLICATIONS

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

ProSelect General Purpose 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

ProSelect General Purpose 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.

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