

SPECIALTY RESIN



PROSELECT™ GENERAL PURPOSE ANION

ProSelect General Purpose Anion Resin (P/N ER20004) 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 occurring organics are found (ie. surface water). This special formulation makes ProSelect General Purpose easier to regenerate and a longer lasting resin as well.

FEATURES

- Complies with USDA & FDA regulations (paragraph 21 CFR173.25) for potable water applications *
- Uniform particle size, low pressure drop
- Superior physical stability
- Organic fouling resistance, high operating capacity
- Certified to NSF/ANSI Standard 61

* For potable water applications, the resin must be properly pre-treated, usually by multiple exhaustion and regeneration cycles, to insure compliance with extractable levels.

Physical Properties

Polymer Structure	Styrene crosslinked with DVB
Functional Group	$R-N^-(CH_3)_2 C_2H_5OH+ X^-$
Ionic Form, as shipped	Chloride or Hydroxide
Physical Form	Tough, spherical beads
Screen Size Distribution	16 to 50 nominal
+16 mesh (U.S. Std.)	2% maximum
-50 mesh (U.S. Std.)	1% maximum
pH Range	0 to 14
Sphericity	93% minimum
Uniformity Coefficient	1.7 approximate
Water Retention	
Chloride Form	37 to 45%
Hydroxide Form	43 to 50%
Solubility	Insoluble
Approximate Shipping Weight	
Chloride Form	44 lbs/cu.ft.
Hydroxide Form	41 lbs/cu.ft.
Swelling Cl ⁻ to OH ⁻ Form	10 to 15%
Total Capacity	
Chloride Form	1.45 meq/ml min
Hydroxide Form	1.30 meq/ml min

Suggested Operating Conditions

Maximum Temperature	
Chloride Form	170°F (77°C)
Hydroxide Form	95°F (35°C)
Minimum Bed Depth	24 inches
Backwash Rate (see next page)	
50% Bed Expansion @ 60°F	2.7 gpm/sq.ft.
Regenerant Concentration †	2 to 6%
Regenerant Flow Rate	0.25 to 1.0 gpm/cu.ft.
Regenerant Contact Time	60 minutes minimum
Regenerant Level	4 to 10 lbs/cu.ft.
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	10 to 15 gal/cu.ft
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	35 to 60 gal/cu.ft.
Service Flow Rate	2 to 4 gpm/cu.ft.
Pressure Drop	See next page

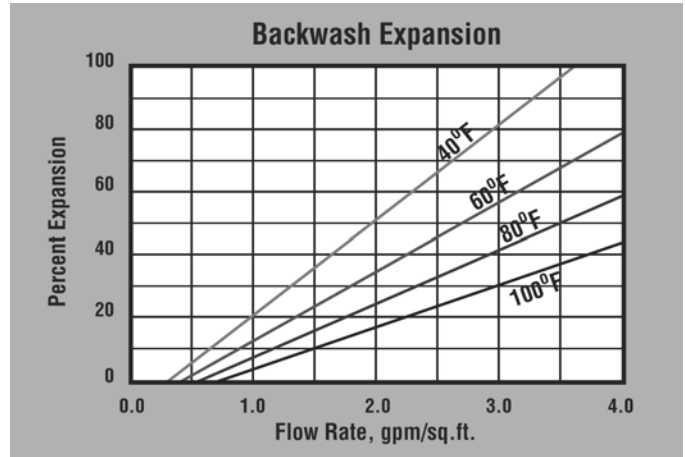
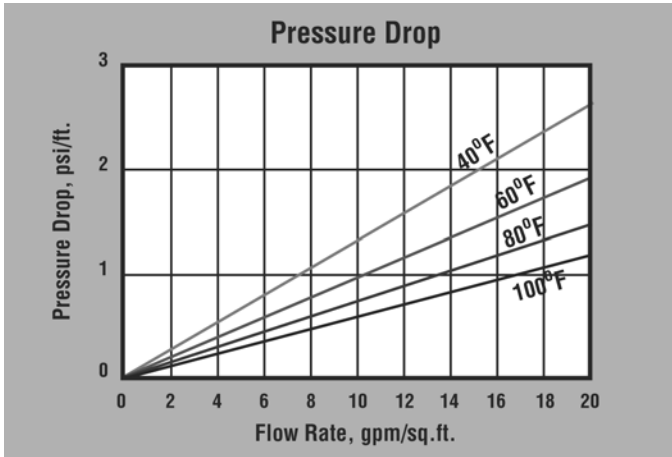
† **CAUTION: DO NOT MIXION EXCHANGE RESINS WITH STRONG OXIDIZING AGENTS.** Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials such as ion exchange resins.

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.

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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 — After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of ProSelect General Purpose in the chloride form.

OPERATING CAPACITY

The operating capacity of ProSelect General Purpose for acid removal at various regeneration levels when treating an influent of 500 ppm of HCl, as CaCO₃, is shown in the following table.

Pounds NaOH/cu.ft.	Capacity Kilograins/cu.ft.
4	21.0
6	22.5
8	23.5
10	24.4
12	24.9

The salt splitting of ProSelect General Purpose at various regeneration levels, based on an influent water containing 500 ppm of NaCl, as CaCO₃, is shown in the following table.

Pounds NaOH/cu.ft.	Capacity Kilograins/cu.ft.
4	19.5
6	20.7
8	21.6
10	22.2
12	22.6