SOFTENING RESIN

PROSOFT™ PREMIUM

ProSoft Premium is the best value for an all-around, hard working, softening resin. It is primarily used on the types of chlorinated waters associated with municipal water treatment. Its full 8% crosslinking makes ProSoft Premium more resistant to chlorine attack and the vigorous backwashes of commercial applications and turbulators.

FEATURES

- Ideal for industrial softeners and demineralizers
- Uniform particle size, low pressure drop
- Superior physical stability
- Low color throw
- Conforms to paragraph 21CFR173.25 of the Food Additives Regulations of the US FDA
- Certified to NSF/ANSI Standard 61 *

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

Physical Properties

Polymer Structure	Styrene/DVB
Polymer Type	Gel
Functional Group	Sulfonic Acid
Physical Form	Spherical beads
Resin Color	Amber
Ionic Form, as shipped	Sodium or Hydrogen
Total Capacity	
Sodium Form	> 2.0 meq/mL
Hydrogen Form	> 1.8 meq/mL
Water Retention	
Sodium Form	42 to 49%
Hydrogen Form	47 to 56%
Swelling, Na to H	5 to 9%
Screen Size Distribution	16 to 50 (US mesh)
Maximum Fines Content	1% (< 50 mesh)
Minimum Sphericity	93%
Uniformity Coefficient	1.6 approx.
Approximate Shipping Weight	
Sodium Form	52 lb/cu.ft.
Hydrogen Form	50 lb/cu.ft.

Part Number

Sodium Form	ER10002
Hydrogen Form	ER10004

Suggested Operating Conditions

Maximum Temperature	
Sodium Form	280°F (138°C)
Hydrogen Form	265°F (130°C)
Minimum Bed Depth	24 inches
Backwash Expansion	25 to 50%
Maximum Pressure Loss	25 psi
Operating pH Range	0 to 14
Regenerant Concentration	
Salt Cycle	10 to 15% NaCl
Hydrogen Cycle	5 to 10% HCl
Hydrogen Cycle	1 to 8% H_2SO_4
Regenerant Level	4 to 15 lb/cu.ft.
Regenerant Flow Rate	0.5 to 1.5 gpm/cu.ft.
Regenerant Contact Time	> 20 minutes
Displacement Flow Rate	Same as dilution water
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.

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.

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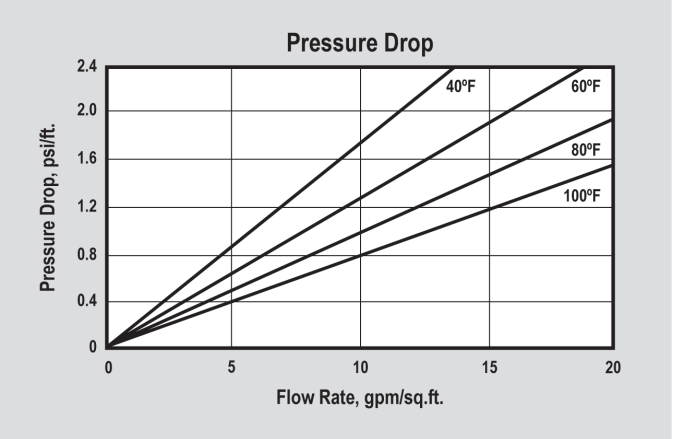
MEMBER Water Quality ASSOCIATION

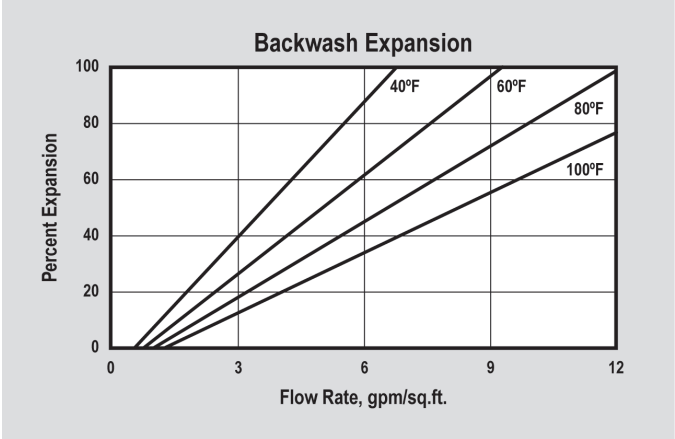
FORM 1133
EFFECTIVE
AUGUST 2021

SOFTENING RESIN

PROSOFT™ PREMIUM



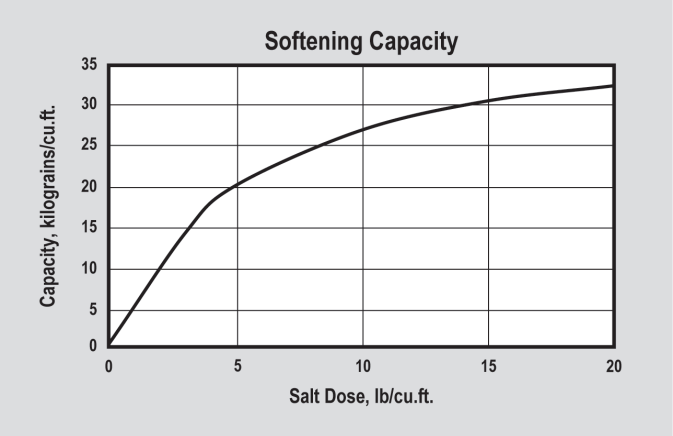
PRESSURE DROP — *The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.*



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

APPLICATIONS

Softening



SOFTENING CAPACITY — *Capacity is based on 2:1 Ca:Mg ratio, 500 ppm TDS as $CaCO_3$, 0.2% hardness in the salt, and 10% brine concentration applied co-currently through the resin over 30 minutes. No engineering downgrade has been applied.*

Iron Removal

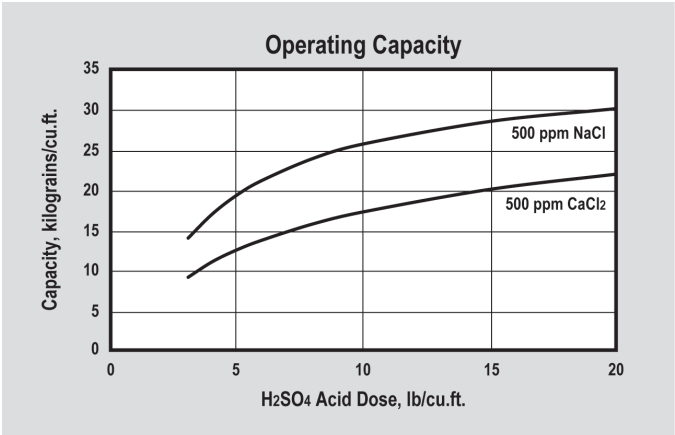
ProSoft Premium has a good capacity for ferrous iron. Iron content in the feedwater should not be more than 1 mg/L Fe per each 17 mg/L of hardness.

Amonia Removal

ProSoft Premium is slightly selective for ammonia compared to sodium, but hardness is much more preferred. Ammonia is not ionized at pH above 9 and is not well removed when the pH is significantly alkaline.

Demineralization

ProSoft Premium (Hydrogen Form) can be used as the cation component in separate bed and mixed bed demineralization applications where a hydrogen form cation resin is coupled with a hydroxide form anion resin. Regeneration is accomplished with stepwise sulfuric acid or with hydrochloric acid.applied.



OPERATING CAPACITY — *Capacity is based on 500 ppm of stated salt (as $CaCO_3$) with 0% alkalinity, 36 inch bed depth, flow rate of 2 to 4 gpm per cu.ft., and a minimum of 30 minutes chemical injection time. Sulfuric acid concentration must be stepwise when calcium concentration exceeds 20% of total cations. No engineering downgrade has been applied.*

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