PROSOFT™ FINE MESH

ProSoft Fine Mesh — We took our premium grade resin and reduced the partical size for faster kinetics and regeneration. ProSoft Fine Mesh is ideally suited for cabinet style softeners and for use with ProSelect™ Tannin-HP for a mixed bed softener/organic removal unit. You won't have any problems here with fines or color throw, because we have already prewashed and rinsed the resin for you.

FEATURES

- Superior kinetics for high efficiency softeners and use in iron-bearing waters and high TDS solutions
- Highly uniform particle size, low color throw
- Superior physical stability provides long life and low pressure drop
- 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
Total Capacity	
Sodium Form	> 2.0 meq/ml
Water Retention	
Sodium Form	42 to 49%
Screen Size Distribution	30 to 50 (US mesh)
Maximum Fines Content	30% (< 50 mesh)
Minimum Sphericity	93%
Uniformity Coefficient	1.4 approx.
Approximate Shipping Weight	
Sodium Form	50 lb/cu.ft.

Part Number

Sodium Form	ER10003

Suggested Operating Conditions

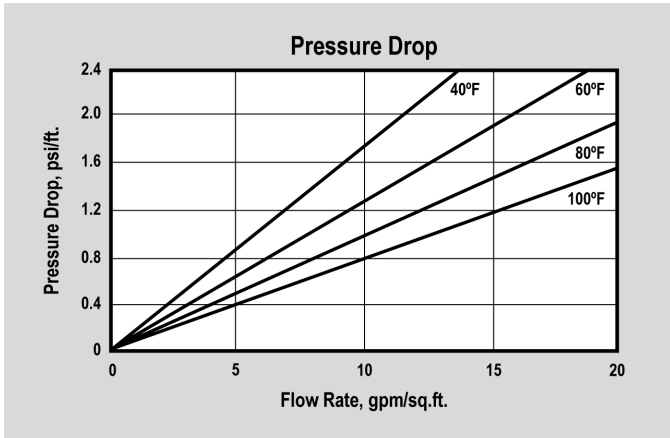|	
Maximum Temperature	
Sodium Form	280°F (138°C)
Minimum Bed Depth	24 inches
Backwash Expansion	25 to 50%
Maximum Pressure Loss	25 psi
Operating pH Range	0 to 14
Regenerant Concentration	
Salt Cycle	10 to 15% NaCl
Regenerant Level	4 to 15 lb/cu.ft.
Regenerant Flow Rate	0.5 to 1.5 gpm/cu.ft.
Regenerant 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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EFFECTIVE
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Pressure Drop

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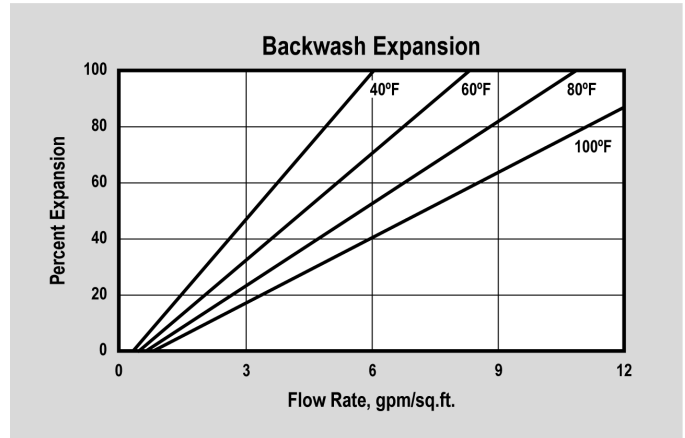
BACKWASH — *The graph above shows the expansion characteristics as a function of flow rate at various temperatures.*

APPLICATIONS

Softening

ProSoft Fine Mesh is an 8% crosslinked cation resin optimized for industrial softening applications. It has higher total capacity than standard crosslinked resins such as ProSoft Gold and has higher operating capacity when relatively large brine doses are used during regeneration. ProSoft Fine Mesh is suitable for hot water applications and for waters that contain modest levels of chlorine.

Softening Capacity
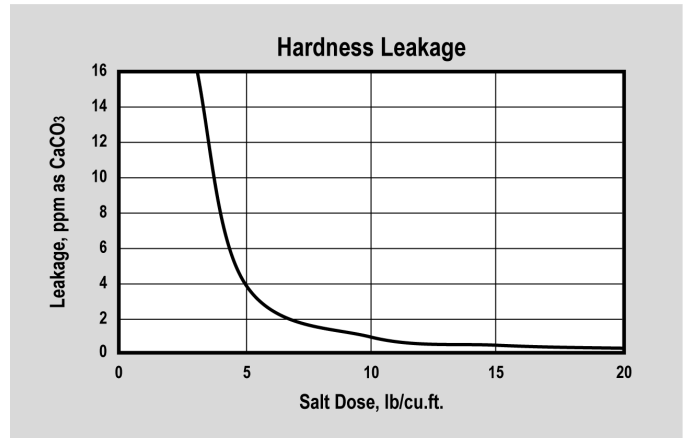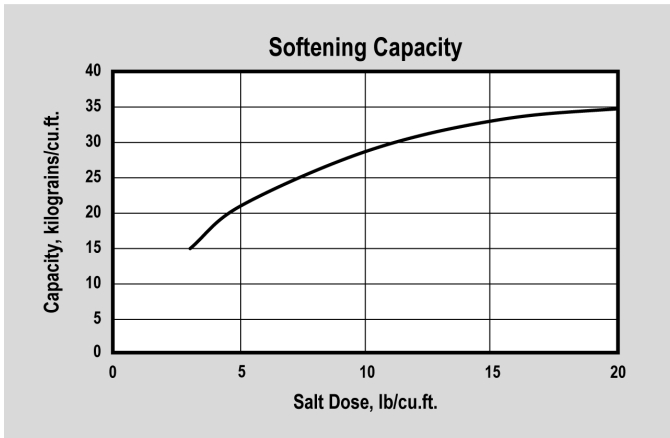
Hardness Leakage

CAPACITY AND LEAKAGE — *Capacity and leakage data are 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 Fine Mesh has good capacity for iron removal. Soluble (ferrous) iron is removed by ion exchange, in much the same way as hardness ions are removed. Particulate (ferric) iron is removed by filtration. As a general rule of thumb, to protect against fouling, the iron content in the feedwater should not be more than 1 mg/L Fe per each 17 mg/L of hardness. This ensures an adequate salt dose and frequent regenerations which help prevent fouling.