SPECIALTY RESIN

PROSELECT™ PFAS

ProSelect PFAS is a chloride form perchlorate, nitrate, and PFAS selective gel strong base anion or polystyrenic macroporous resin. It is Gold Seal Certified by the WQA for use in potable water applications. Its unique functionality greatly increases the selectivity for nitrate while greatly decreasing the interference from sulfate ions. ProSelect PFAS is recommended for the removal of perchlorate, nitrate, and most PFAS compounds.

FEATURES & BENEFITS

- Highest operating capacity of any perchlorate selective resin
- Low sulfate selectivity
- Controlled particle size, low pressure drop
- Superior physical stability
- NSF/ANSI-61 Certified for Material Safety

Suggested Operating Conditions

Maximum Temperature	
Chloride Form	170°F (66°C)
Minimum Bed Depth	24 inches
Backwash Expansion	25 to 50%
Maximum Pressure Loss	20 psi
Operating pH Range	4 to 10 SU
Regenerant Concentration	
Salt Cycle	5 to 10% NaCl
Regenerant Level	>10 lb/cu.ft.
Regenerant Flow Rate	0.25 to 1.0 gpm/cu.ft.
Regenerant Contact Time	> 30 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 3 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

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.

Part Number

Strong Base Anion	ER20012
Polystyrenic Macroporous	ER20012-MP

Physical Properties

Polymer Matrix	
ER20012	Styrenic Gel
ER20012-MP	Styrenic Macroporous
Ionic Form	Chloride
Functional Group	Tributylamine
Physical Form	Spherical beads
Color	
ER20012	Yellow to orange
ER20012-MP	White to tan
Particle Size	16 to 50 US Mesh (297 to 1190 µm)
Minimum Sphericity	
ER20012	80%
ER20012-MP	95%
Uniformity Coefficient	1.6 approx.
Reversible Swelling	Cl to No_3 –5% to –10%
Temperature Limit	250°F (121°C)
Total Exchange Capacity	
ER20012	0.8 meq/ml
ER20012-MP	0.6 meq/ml *
Moisture Retention	
ER20012	38 to 50%
ER20012-MP	43 to 58%
Regenerability	Yes **
Approx. Shipping Weight	40 to 42 lb/cu.ft. (641 to 673 g/L)

* Despite having a lower capacity than ER20012, ER20012-MP has faster kinetics and can be used at shorter EBCT.

** Exception: currently non-regenerable for PFAS removal applications.

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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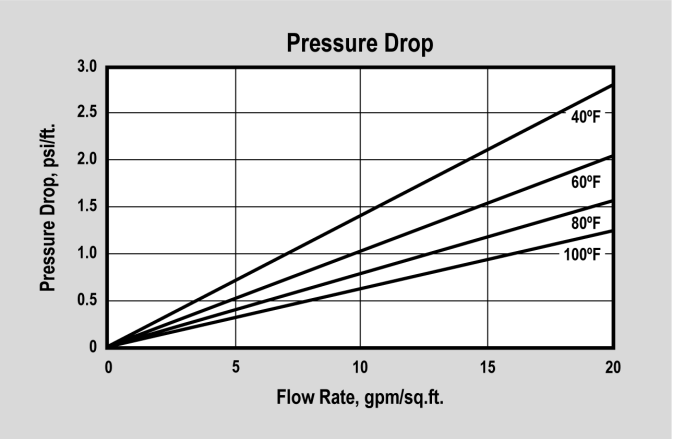
MEMBER Water Quality ASSOCIATION

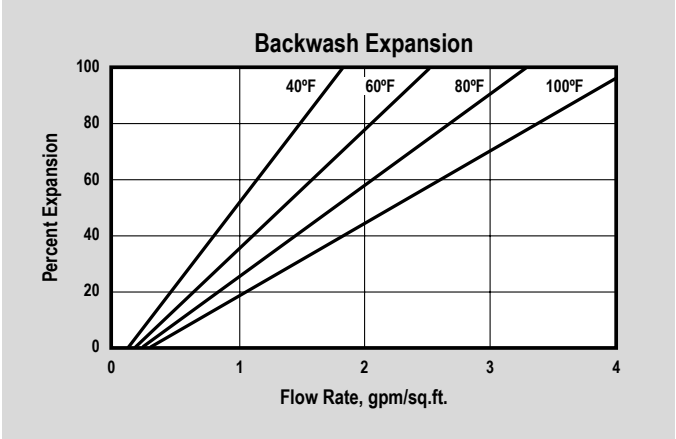
FORM 1520
EFFECTIVE
OCTOBER 2022

SPECIALTY RESIN

PROSELECT™ PFAS



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

PFAS Removal

ProSelect PFAS can be used for removal of various PFAS compounds, including PFOA and PFOS, from water. Currently, this is a non-regnerable application. Testing has shown it can remove a wide range of other PFAS species in addition to these compounds. Ion exchange offers the benefit of reduced contact times and longer throughputs vs. conventional activated carbon treatment. An understanding of the influent water chemistry is needed for thorough review. Levels of TOC, VOC, and individual PFAS compounds are needed in addition to the basic background water chemistry (chloride, sulfate, alkalinity, etc.). Any other contaminants that may be present are also needed to determine impact on PFAS removal (uranium, perchlorate, chromate, arsenic, etc.).

Perchlorate Removal

ProSelect PFAS is ideal for single use perchlorate removal applications and is a cost effective method to remove trace levels of perchlorate from water. The perchlorate ion is very strongly attracted to ProSelect PFAS—so much so that regeneration is impractical or impossible. However, in most cases, ER20012-MP loads perchlorate to almost the full capacity of the resin, resulting in very long life and eliminating the need to regenerate and re-use the spent resin.

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