PRODUCT SPECIFICATION SHEET

SIR-110-MP-HP

SELECTIVE EXCHANGER

PFAS, NITRATE, & PERCHLORATE SELECTIVE POLYSTYRENIC MACROPOROUS CHLORIDE FORM

ResinTech SIR-110-MP-HP is a chloride form nitrate and perchlorate selective macroporous strong base anion resin. Its unique functionality greatly increases the selectivity for nitrate while greatly decreasing the interference from sulfate ions. Despite having a lower capacity than SIR-110-HP, it also has faster kinetics and can be used at shorter EBCT. SIR-110-MP-HP is recommended for the removal of perchlorate, nitrate, and some PFAS compounds.

APPLICATIONS

- Perchlorate Removal
- Nitrate Removal
- Iodide Removal
- Pertechnetate Removal
- PFAS Removal

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Macroporous
Ionic Form	Chloride
Functional Group	Tributylamine
Physical Form	Spherical Beads
Particle Size	16 to 50 US Mesh (297 - 841 µm)
% < 50 mesh (300µm)	< 1%
Minimum Sphericity	95%
Uniformity Coefficient	1.6
Reversable Swelling	Cl to NO_3 -5% to -10%
Temp Limit	250°F (121°C)
Capacity (meq/mL)	0.6
Moisture Retention	43% to 58%
Shipping Weight	40 - 42 lbs/ft³ (641 - 673 g/L)
Color	White to Tan
Regenerability	Yes*

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

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WWW.APACHECHEMICALS.COM

CERTIFICATIONS

WQA Gold Seal*

PACKAGING OPTIONS

- 500 ml samples
- 1 ft³ bags
- 1 ft³ boxes
- 1 ft³ drums
- 7 ft³ drums
- 42 ft³ supersacks

* NSF/ANSI/CAN 61: Drinking Water System Components - Health Effects

Revision 1.2
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RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

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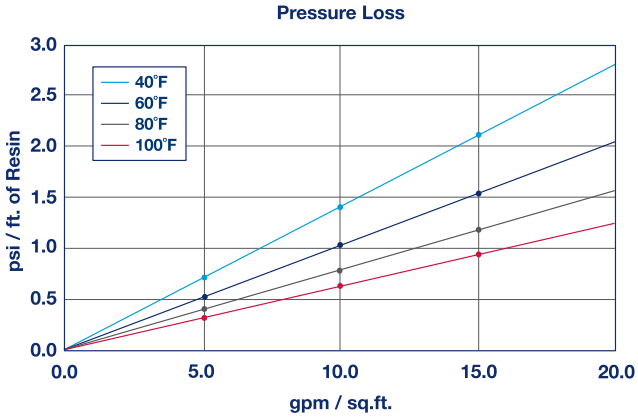

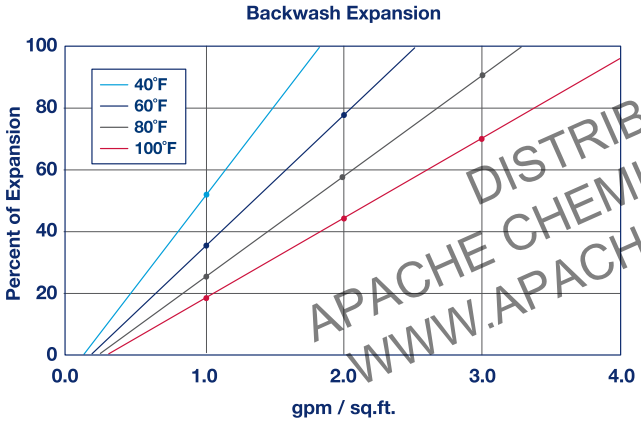

PFAS REMOVAL

ResinTech SIR-110-MP-HP 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

ResinTech SIR-110-MP-HP 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 the ResinTech SIR-110-MP-HP, so much so that regeneration is impractical or impossible. However, in most cases perchlorate loads 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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SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature Chloride form	170˚F
Minimum bed depth	24 inches
Backwash expansion	25 to 50 percent
Maximum pressure loss	20 psi
Operating pH range	4 to 10 SU
Regenerant Concentration Salt cycle	5 to 10 percent NaCl
Regenerant level	>10 lbs./cu.ft.
Regenerant flow rate	0.25 to 1.0 gpm/cu.ft.
Regenerant contact time	>30 minutes
Displacement flow rate	Same as dilution flow
Displacement volume	10 to 15 gallons/cu.ft.
Rinse flow rate	Same as service flow
Rinse volume	35 to 60 gallons/cu.ft.
Service flow rate	1 to 3 gpm/cu.ft.

Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.
For operation outside these guidelines, contact ResinTech Technical Support

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