PRODUCT SPECIFICATION SHEET

SIR-100-HP

SELECTIVE EXCHANGER

NITRATE SELECTIVE
POLYSTYRENIC MACROPOROUS
CHLORIDE FORM

ResinTech SIR-100-HP is a chloride form macroporous nitrate selective strong base anion resin. It has been Gold Seal Certified by the WQA for use with potable water. Its unique functionality increases the selectivity for nitrate and decreases selectivity for sulfate, often resulting in higher operating capacity and lower leakage than type 1 or type 2 anion resins. SIR-100-HP is intended for the removal of nitrate and/or perchlorate from otherwise potable water.

APPLICATIONS

- Nitrate Removal
- Perchlorate Removal

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Macroporous
Ionic Form	Chloride
Fuctional Group	Triethylamine
Physical Form	Spherical Beads
Particle Size	16 to 50 US Mesh (297 - 1190µm)
% < 50 mesh (300µm)	1.1%
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)	1.0
Moisture Retention	46% to 65%
Shipping Weight	40 - 42 lbs/ft³ (641 - 673 g/L)
Color	White to Tan
Regenerability	Yes

CERTIFICATIONS

WQA Gold Seal

C US

PACKAGING OPTIONS

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

MADE IN AMERICA

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

Revision 1.0

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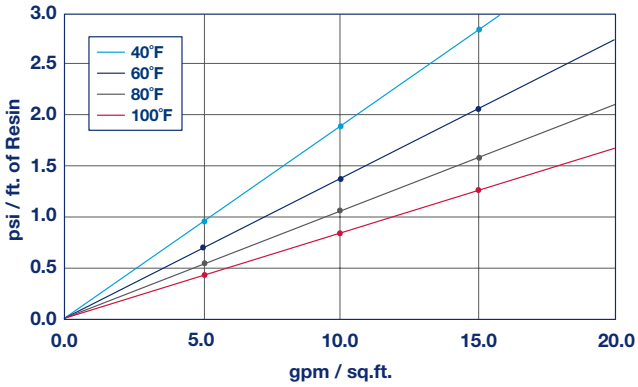
SIR-100-HP

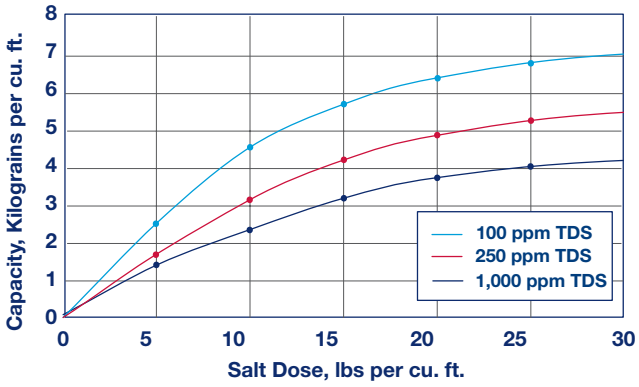
HYBRID

NITRATE SELECTIVE
POLYSTYRENIC MACROPOROUS
CHLORIDE FORM

Pressure Loss

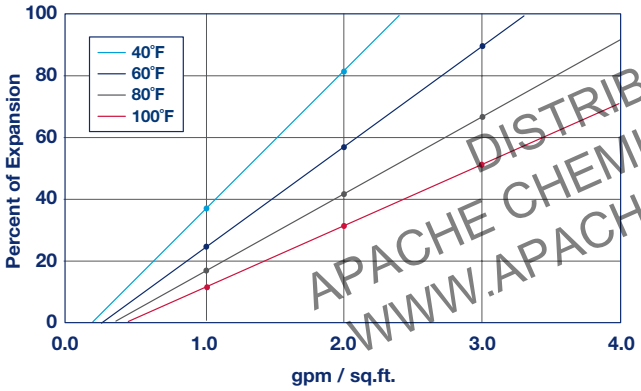


SIR-100-HP Capacity for Nitrate



Capacity and leakage based on 10% NO_3 and 40% SO_4 in the feed and 35.7 ppm NO_3 endpoint (all as $CaCO_3$). Capacity and leakage are for nitrate alone. TDS is for total anions as $CaCO_3$. No engineering downgrade has been applied.

Backwash Expansion



NITRATE REMOVAL

ResinTech SIR-100-HP is used in the chloride form to remove nitrates from potable water. It has a unique amine functional group that eliminates the possibility of nitrate dumping. SIR-100-HP has reduced affinity for sulfate which provides high operating capacity and efficient regeneration. When treating waters with high hardness the brine dilution and displacement waters should be softened and a low hardness salt used to prevent scaling.

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	
Average flow	1 to 4 gpm/cu.ft.
Peak Flow	<10 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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