

PRODUCT SPECIFICATION SHEET

SUPRA 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



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TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

| | |
|-------------------------------|---|
| Polymer Matrix | Styrenic Macroporous |
| Ionic Form | Chloride |
| Functional Group | Triethylamine |
| Physical Form | Spherical Beads |
| Particle Size | 16 to 50 US Mesh (297 - 1190µm) |
| % < 50 mesh (300µm) | < 1% |
| Minimum Sphericity | 95% |
| Uniformity Coefficient | 1.6 |
| Reversible 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/ft ³ (641 - 673 g/L) |
| Color | White to Tan |
| Regenerability | Yes |

CERTIFICATIONS

WQA Gold Seal*

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

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PACKAGING OPTIONS

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

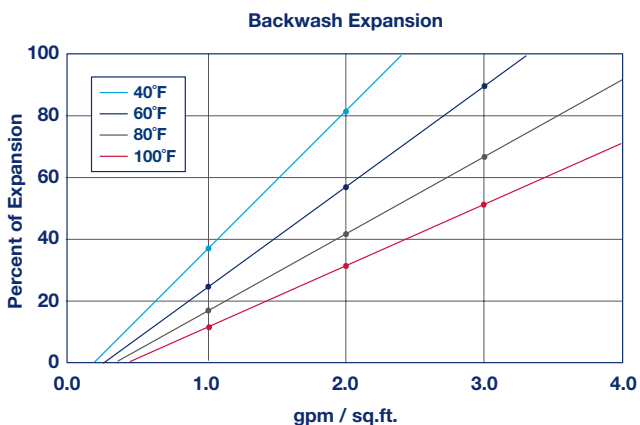
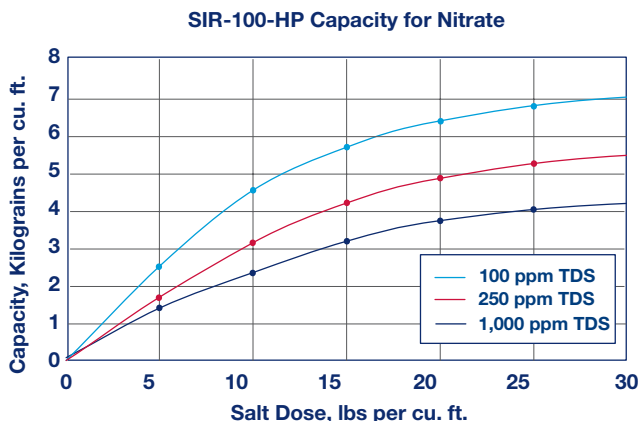
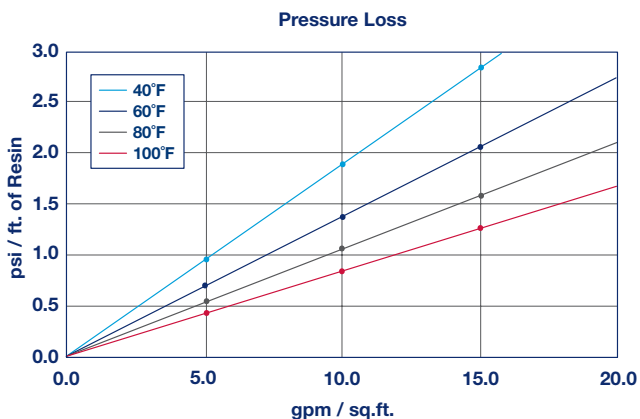


SUPRA

SIR-100-HP

HYBRID

NITRATE SELECTIVE
POLYSTYRENIC MACROPOROUS
CHLORIDE FORM



Capacity and leakage based on 10% NO₃ and 40% SO₄ in the feed and 35.7 ppm NO₃ endpoint (all as CaCO₃). Capacity and leakage are for nitrate alone. TDS is for total anions as CaCO₃. No engineering downgrade has been applied.

SUGGESTED OPERATING CONDITIONS

| | |
|--------------------------------|-------------------------|
| Maximum continuous temperature | 170°F |
| Chloride form | |
| 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. |

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.

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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