

# PRODUCT SPECIFICATION SHEET

## SUPRA SIR-110-HP

SELECTIVE EXCHANGER

PFAS, NITRATE, & PERCHLORATE SELECTIVE  
STRONG BASE ANION  
CHLORIDE FORM

ResinTech SIR-110-HP is a chloride form perchlorate, nitrate, and PFAS selective gel strong base anion resin. The HP designation means 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. SIR-110-HP is recommended for the removal of perchlorate, nitrate, and most PFAS compounds.

### APPLICATIONS

- Perchlorate Removal
- Nitrate Removal
- Iodide Removal
- Pertechneate Removal
- PFAS Removal

### TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

<b>Polymer Matrix</b>	Styrenic Gel
<b>Ionic Form</b>	Chloride
<b>Fuctional Group</b>	Tributylamine
<b>Physical Form</b>	Spherical Beads
<b>Particle Size</b>	16 to 50 US Mesh (297 - 1190µm)
<b>% &lt; 50 mesh (300µm)</b>	< 1%
<b>Minimum Sphericity</b>	80%
<b>Uniformity Coefficient</b>	1.6
<b>Reversable Swelling</b>	Cl to No <sub>3</sub> -5% to -10%
<b>Temp Limit</b>	250°F (121°C)
<b>Capacity (meq/mL)</b>	0.8
<b>Moisture Retention</b>	38% to 50%
<b>Shipping Weight</b>	40 - 42 lbs/ft <sup>3</sup> (641 - 673 g/L)
<b>Color</b>	Yellow to Orange
<b>Regenerability</b>	Yes

### CERTIFICATIONS

WQA Gold Seal



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### PACKAGING OPTIONS

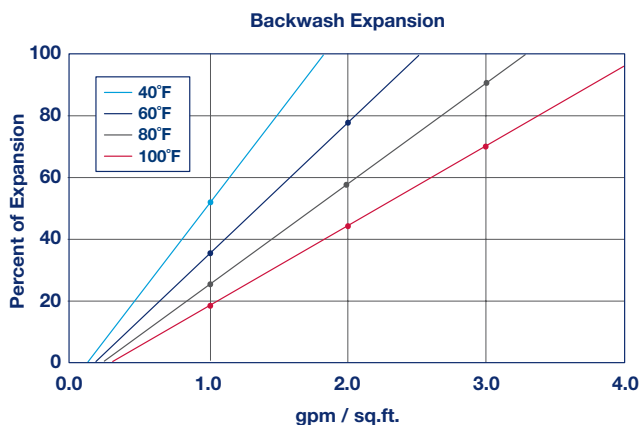
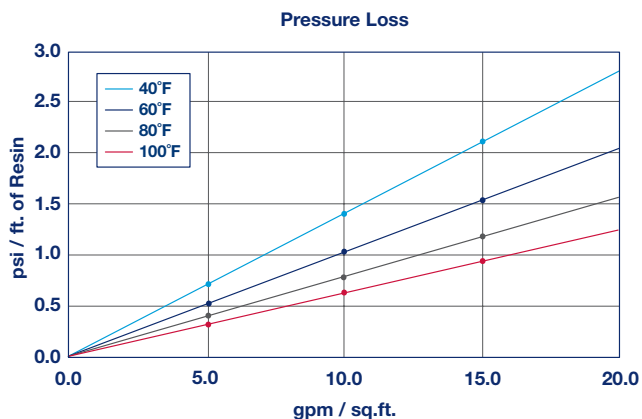
- 500 ml samples
- 1 ft<sup>3</sup> bags
- 1 ft<sup>3</sup> boxes
- 1 ft<sup>3</sup> drums
- 7 ft<sup>3</sup> drums
- 42 ft<sup>3</sup> supersacks



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### PFAS REMOVAL

ResinTech SIR-110-HP can be used for removal of various PFAS compounds, including PFOA and PFOS, from water. 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-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-HP, so much so that regeneration is impractical or impossible.

### 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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