

# PFAS Forever Chemical Treatment

Residential Drinking Water  
Commercial  
Industrial  
Point-of-Entry (POE)  
Private Wells  
Groundwater

## Perchlorate Reduction Filters

Highest capacity perchlorate removal filters featuring Resintech® SIR-110-HP. Fits standard residential & industrial size housings (10 and 20 inches). Overside cartridge available for maximum media.



## SIR110HP Filtration Media

Chloride form perchlorate, nitrate, and PFAS selective gel strong base anion resin. Gold Seal Certified by the WQA for potable water applications. Recommended for removal of perchlorate, nitrate, iodide, pertechnetate, and most PFAS compounds.



MADE IN CAMDEN, USA

est. 1947

**DUFF** CO.

When you need it now... or don't know how

CALL 610-275-4453

| DUFFCO.COM

| INFO@DUFFCO.COM

# ARIES CARTRIDGE SPECIFICATION SHEET

# ARIES

## PFOS & PFOA REDUCTION

PRO SERIES, DROP-IN CARTRIDGE

PFOS & PFOA REDUCTION

Per- and Polyfluoroalkyl substances (PFAS's) are fluorinated organic chemicals that are sometimes called "forever chemicals" because they do not break down naturally over time. Per and Poly Fluorinated compounds have been used in every day items such as food packaging, protective coating's and clothing. These emerging contaminants found their way into the water supply. PFAS's have a tendency to bioaccumulate in the blood and organs of human beings and animals.

Aries PFOS & PFOA reduction cartridges utilize a high purity strong base anion resin exhibiting an unusually high preference for multiple PFAS compounds. The AF-10-3612 filter components are selective for a wide variety of Per and Poly Fluorinated compounds including; PFOS, PFOA, PFNA, PFHpA and PFHxS.

### HIGHLIGHTS

- Highest capacity media for PFOS & PFOA removal
- Also removes other Per and Poly fluorinated compounds
- Fits standard residential & industrial sized housings
- Oversized cartridge for maximum media fill
- Lot control traceability
- Made in the USA



### APPLICATIONS

- POU
- Drinking Water
- Post RO

### SPECIFICATIONS

- Nominal Rating of 25 $\mu$
- Max Pressure of 125 psi (850 kPa)
- Max Temperature 100°F (38 °C)

Revision 2.3



ISO 9001 : 2015 CERTIFIED



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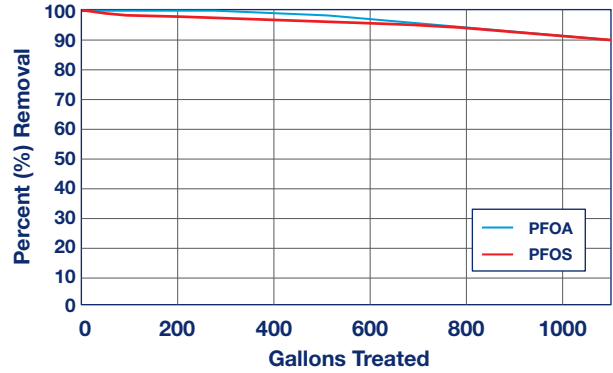
DIMENSIONS	MAX FLOW		CAPACITY* Gallons	PART NUMBER
	gpm	lpm		
2.5 x 10 in. (Slim Line)	0.10	0.38	500	AF-10-3612
2.5 x 20 in. (Slim Line)	0.15	0.58	1000	AF-20-3612
4.5 x 10 in. (Big Blue)	0.20	0.76	1100	AF-10-3612-BB
4.5 x 20 in. (Big Blue)	0.50	1.89	1600	AF-20-3612-BB
2 x 12 in. (Quick Connect)	0.05	0.19	175	IF-12-3612

\*Capacity measured to 90% removal based on maximum industry standards.

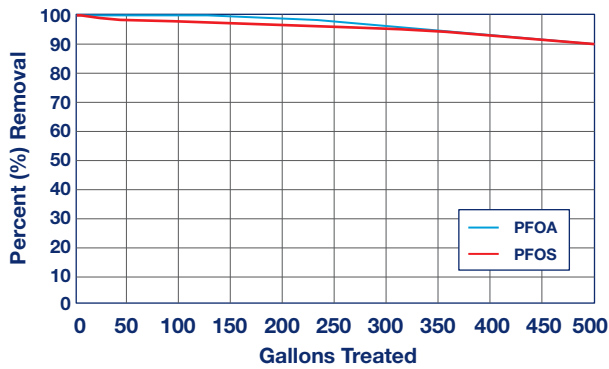
### CHALLENGE INLET WATER ANALYSIS

	CONCENTRATION	UNITS
PFOA	1225	ppt
PFOA	563	ppt
Sulfate	224	ppm
Chloride	117	ppm
Alkalinity	218	ppm

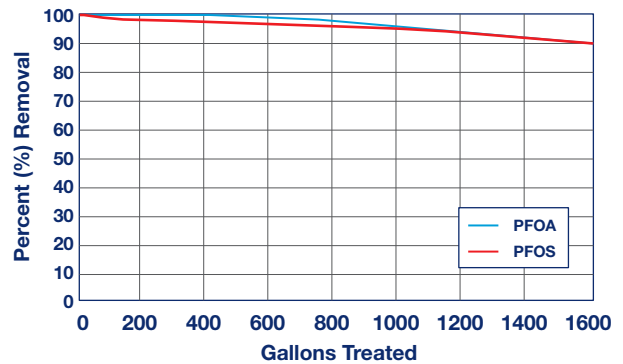
AF-10-3612-BB



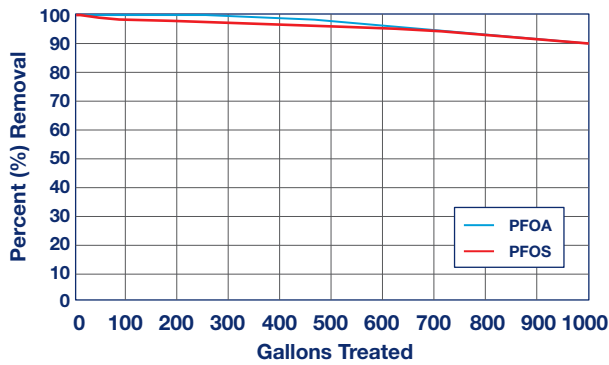
AF-10-3612



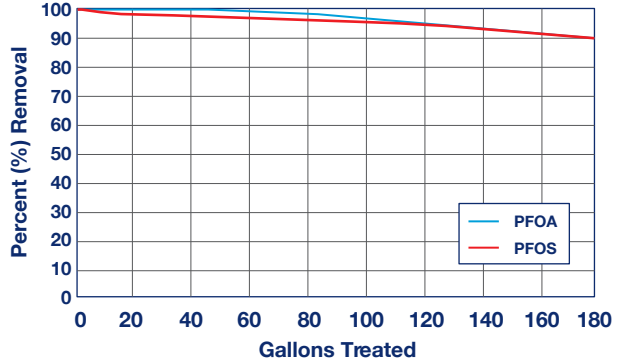
AF-20-3612-BB



AF-20-3612



IF-12-3612



# SIR-110-HP 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
- Pertechnetate 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>Reversible 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*

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

### 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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WQA Gold Seal

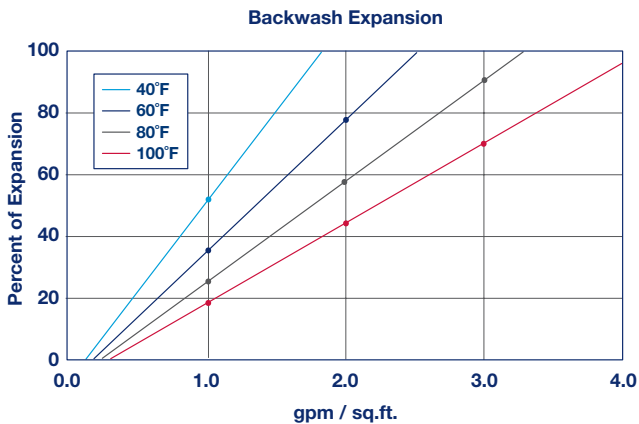
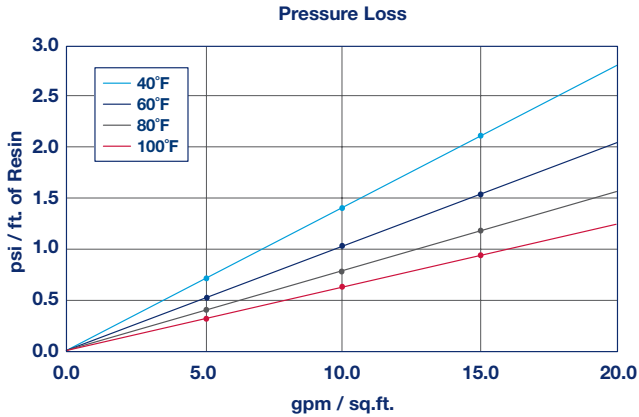


# SUPRA

## SIR-110-HP

SELECTIVE EXCHANGER

**PFAS, NITRATE, & PERCHLORATE SELECTIVE  
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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. Currently, this is a non-regenerable 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-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	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	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