SIR-1200

Grade: Standard

Precious metal selective, strong base anion resin, styrene/DVB macroporous, chloride form

ResinTech SIR-1200 is a chloride form type 1 gel strong base anion resin. It has an exceptionally high capacity and is optimized for mining and single-use applications. SIR-1200 is intended for use in uranium removal as well as the removal of other trace contaminants such as chromate and arsenate in industrial applications.

FEATURES & BENEFITS

- High Total Capacity
- Controlled Particle Size
- Superior Physical Stability
- Suited For Mining And Groundwater Applications

APPLICATIONS

- Precious Metal Recovery
- Cartridge Applications
- Chromate Removal
- Radwaste
- Uranium Removal
- Molybdate Removal

PHYSICAL PROPERTIES

Polymer Matrix	Styrene/DVB
Polymer Type	Gel
Ionic Form (as shipped)	Chloride (Cl^-)
Functional Group	Trimethylamine
Physical Form	Spherical Beads
Uniformity Coefficient	1.60
Particle Size	16-50 US mesh (297-1190µm)
< 50 mesh (300 µm) %	< 1%
Minimum Sphericity (%)	93
Reversible Swelling	$Cl \rightarrow No_3$ -3 to -7%
Capacity (meq/mL)	1.40
Moisture Retention (%)	42 to 51
Shipping Weight	43 - 45 lbs/cu.ft. (689 - 721 g/L)
Color	White to Amber
Regenerable	Regenerable

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	250°F (121°C)
Minimum Bed Depth	24 in. (61.0 cm)
Maximum Pressure Loss	20 psi (138 kPa)
Backwash Expansion (%)	25 to 50
Operating pH Range	4.0 to 10.0
Flow Rate	
Working Service	1-10 gpm/cu.ft. (8-80 BV/h)

Conforms to §21CFR173.25 of the USFDA Food Additives Regulations

RESINTECH INC.
INNOVATIONS IN ION EXCHANGE

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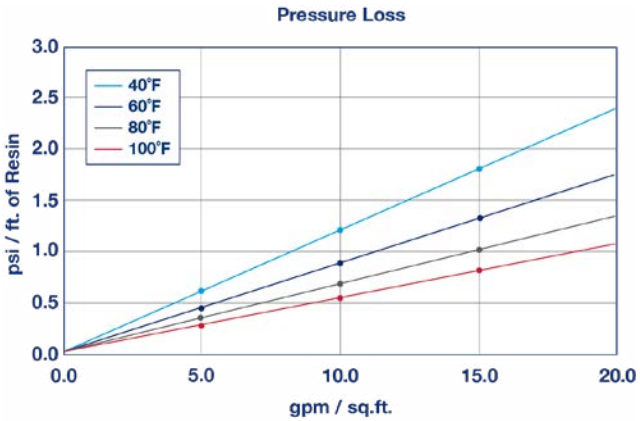
REGENERATION DETAILS

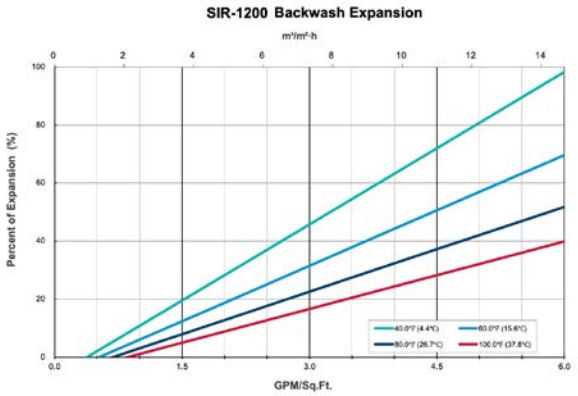
Salt Cycle (NaCl)	2 to 6%	Displacement Flow Rate	Same as dilution water
Regenerant Level	4-10 lbs/cu.ft. (64.1-160.2 g/L)	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Regenerant Flow Rate	0.25-1.0 gpm/cu.ft. (2-8 BV/h)	Rinse Flow Rate	Same as service flow
Regenerant Contact Time	> 40 minutes	Rinse Volume	35-60 gals/cu.ft. (5-8 BV)

PRESSURE LOSS



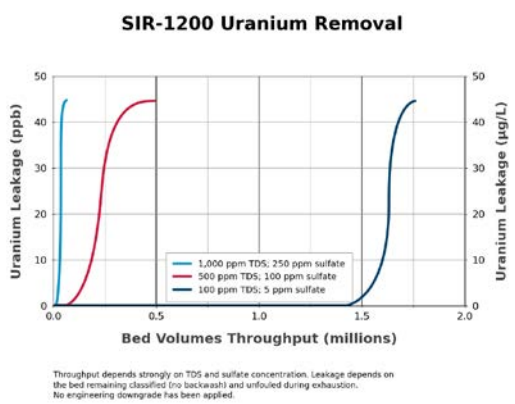
The graph above shows the expected pressure loss of ResinTech SIR-1200 per foot of bed depth as a function of flow rate at various temperatures.

BACKWASH EXPANSION



The graph above shows the expansion characteristics of ResinTech SIR-1200 as a function of flow rate at various temperatures.

CAPACITY



Capacity and leakage data are based on the following: 2:1 Ca:Mg ratio, 500 ppm TDS as CaCO3, 0.2% hardness in the salt and 10% brine concentration applied co-currently through the resin over 30 minutes. No engineering downgrade has been applied.

RADWASTE

ResinTech **SIR-1200** is ideally suited for radwaste applications requiring the removal of radioactive anions, especially when the feed is significantly radioactive. The high crosslinking content of **SIR-1200** gives it improved resistance to chemical damage caused by ionizing radiation. Structural integrity is maintained up to approximately 1 x 109 rads exposure.

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MOLYBDATE REMOVAL

ResinTech **SIR-1200** has exceptionally high affinity for molybdate ions, even in the presence of substantial concentrations of other ions. Regeneration is accomplished with sodium chloride brine in a fashion similar to a water softener, or with a variety of other salts such as sodium bicarbonate for applications where an increase in chloride ions is undesirable.

CERTIFICATIONS

Meets NSF/ANSI/CAN 61

Meets NSF/ANSI/CAN 372

PACKAGING

Standard

1 cu.ft. Bag | 7 cu.ft. Drum
200L Drum | 25L Bag

Metric

42 cu.ft. Supersack | 5 cu.ft. Drum
1000L Supersack | 140L Drum

Shipping Weight

43 - 45 lbs/cu.ft. (689 - 721 g/L)

MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets (MSDS) are available for all products on the ResinTech website. They contain important health and safety information that may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith. However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.

Safety Data Sheets (SDS) are available at resintech.com

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