

RESINTECH SIR-800 is a sulfite form strong base gel anion resin. SIR-800 removes oxygen from water by converting sulfite to sulfate on the resin exchange sites. RESINTECH SIR-800 is intended for oxygen removal applications and for other processes where an immobile reducing agent is needed. SIR-800 is supplied in the neutral sulfite form.

FEATURES & BENEFITS

- **SUPPLIED IN THE SULFITE FORM**

Resin is supplied in the sulfite form for oxygen removal and other redox reactions

- **NO IONIC DUMPING**

Unique manufacturing process places the maximum level of sulfite onto the resin and minimizes the tendency to rinse off sulfite in exchange for other ions

- **LOW ODOR**

Yields very little of the typical pungent odor characteristic of low pH oxygen scavenger resins

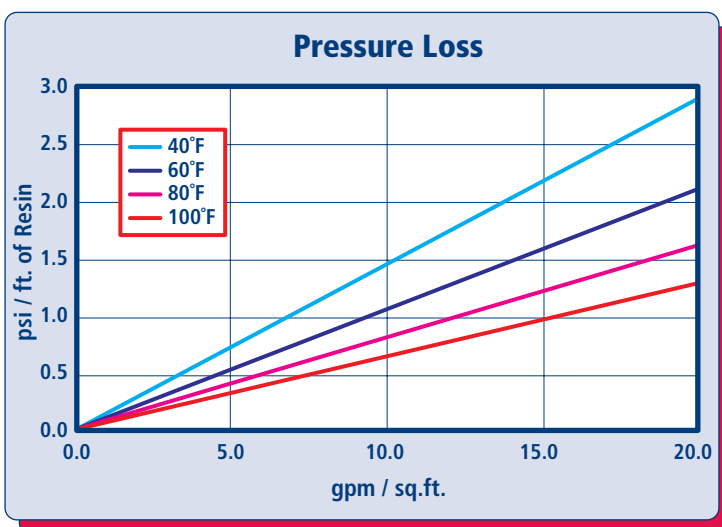
- **SPECIAL PACKAGING AVAILABLE TO EXTEND SHELF LIFE**

Gas barrier drum liners are available to prevent air from contacting the resin, greatly increasing shelf life

- **CONTROLLED PARTICLE SIZE**

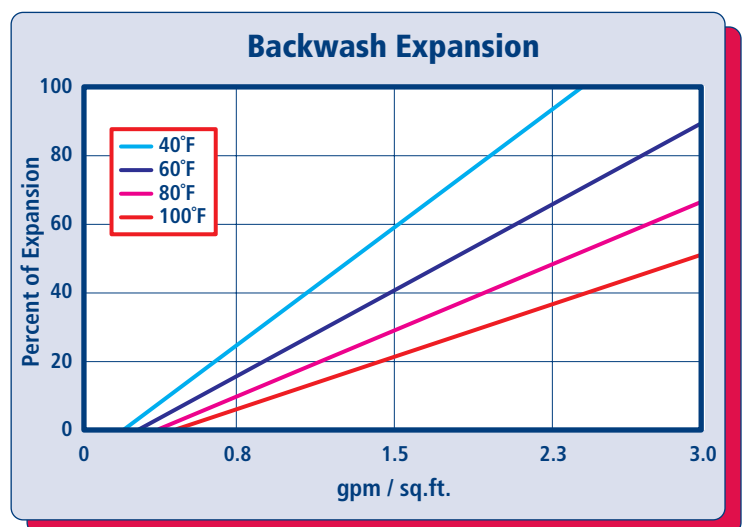
16 to 50 mesh size provides a low pressure drop and superior kinetics

HYDRAULIC PROPERTIES



PRESSURE LOSS

The graph above shows the expected pressure loss of ResinTech SIR-800 per foot of bed depth as a function of flow rate at various temperatures.



BACKWASH

The graph above shows the expansion characteristics of ResinTech SIR-800 as a function of flow rate at various temperatures.

RESINTECH® SIR-800

PHYSICAL PROPERTIES

Polymer Structure	Styrene/DVB
Polymer Type	Gel
Functional Group	Quarternary Amine
Physical Form	Spherical beads
Ionic Form as shipped	Sulfite
Total Capacity	
Sulfite form	>0.8 meq/mL
Water Retention	
Sulfite form	42 to 51 percent
Approximate Shipping Weight	
Sulfite form	44 lbs./cu.ft.
Screen Size Distribution (U.S. mesh)	16 to 50
Maximum Fines Content (<50 mesh)	1 percent
Minimum Sphericity	85 percent
Uniformity Coefficient	1.6 approx.
Resin Color	Amber

Note: Physical properties can be certified on a per lot basis, available upon request

SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
Sulfite 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
Service flow rate	
Once through	1 to 2 gpm/cu.ft.
Recycle	2 to 10 gpm/cu.ft.

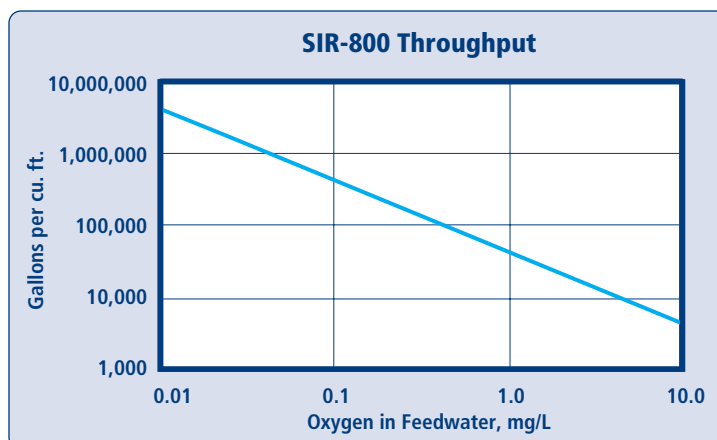
Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.

For operation outside these guidelines, contact ResinTech Technical Support

APPLICATIONS

OXYGEN REMOVAL

RESINTECH SIR-800 is a strong base anion resin supplied in the sulfite salt form for removing oxygen from water. Sulfite on the resin reacts with oxygen (in the water) to form sulfate on the resin. Virtually complete removal of oxygen can be obtained if the flow rate and pH are carefully controlled. The rate constant for oxygen removal slows as pH is increased beyond neutral. SIR-800 is normally used in recycle applications where the feed is partially deoxygenated water. For once-through applications where complete removal of oxygen is required, a reduced flow rate and/or reduced pH is necessary.



Throughput values are for oxygen only. Chlorine and other oxidants will reduce throughput by using up capacity. Sulfite form anion resin is susceptible to exhaustion from contact with air. Minimize handling in order to preserve capacity. No engineering downgrade has been applied.

CAUTION: DO NOT MIX ION EXCHANGE RESIN WITH STRONG OXIDIZING AGENTS. Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials, such as ion exchange resins.

MATERIAL SAFETY DATA SHEETS (MSDS) are available for all ResinTech Inc. products. To obtain a copy, contact your local ResinTech sales representative or our corporate headquarters. They contain important health and safety information. That information 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.

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