

SIR-600

Ammonia & cesium selective, zeolite cation exchanger, sodium / potassium form

ResinTech SIR-600 is a sodium/potassium form granular naturally occurring aluminosilicate zeolite. It is an inorganic cation exchanger that can also capture certain ions by molecular sieving. SIR-600 is intended for the removal of radioactive cesium from wastewaters that contain moderate levels of sodium and potassium, and for the removal of ammonia from water.



FEATURES & BENEFITS

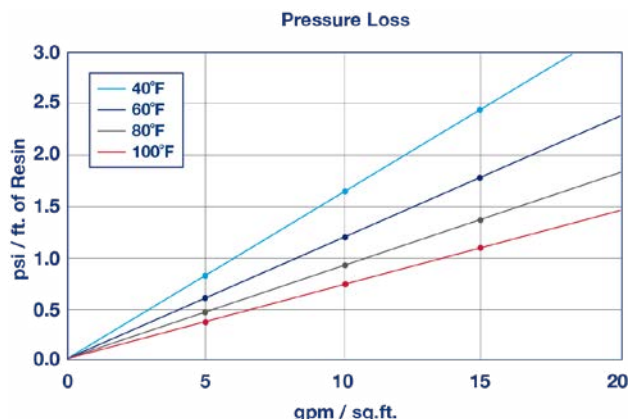
- Removes Cesium, Ammonia, Strontium & Potassium
- Physically Stable
- Controlled Granule Size

APPLICATIONS

- Cartridge Applications
- Ammonia Removal
- Cesium Removal
- Potassium Removal
- Strontium Removal

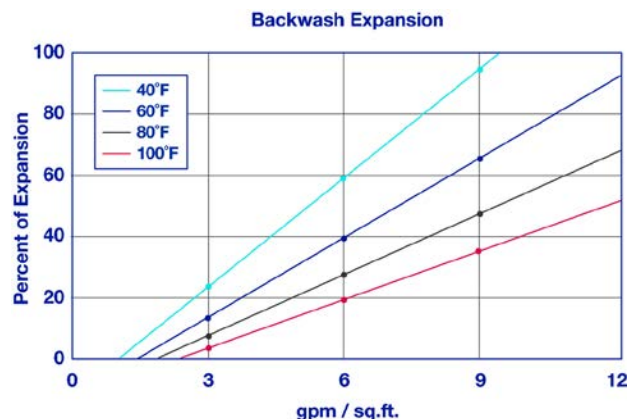
Polymer Matrix	Zeolite	< 50 mesh (300 µm) %	< 1%
Polymer Type	Crystalline	Uniformity	Gaussian
Ionic Form (as shipped)	Sodium / Potassium (Na ⁺ /K)	Uniformity Coefficient	1.60
Functional Group	Aluminosilicate	Capacity (meq/mL)	0.50
Physical Form	Granular	Moisture Retention (%)	0 to 10
Particle Size US Mesh (µm)	12 (1680) to 40 (400)	Shipping Weight	63 - 65 lbs/cu.ft. (1009 - 1041 g/L)
		Color	Light Green to Tan

PRESSURE LOSS



The graph above shows the expected pressure loss of ResinTech SIR-600 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-600 as a function of flow rate at various temperatures.

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	212°F (100°C)	Operating pH Range	5.0 to 10.0
Minimum Bed Depth	36 in. (91.4 cm)	Flow Rate	
Maximum Pressure Loss	25 psi (172 kPa)	Working Service	1-5 gpm/cu.ft. (8-40 BV/h)
Backwash Expansion (%)	25 to 50		

CESIUM REMOVAL

ResinTech **SIR-600** has very high selectivity for cesium over sodium and divalent ions, such as calcium and magnesium. Relative affinity for cesium over common ions found in potable water supplies is typically more than 100 to 1. Cesium is not effectively eluted from **SIR-600** by regeneration with brine. Cesium laden **SIR-600** is easily stabilized for safe disposal due to its inorganic crystalline structure.

REGENERATION DETAILS

Salt Cycle (NaCl)	10 to 15%	Displacement Flow Rate	Same as dilution water
Regenerant Level	2-10 lbs/cu.ft. (32.0-160.2 g/L)	Displacement Volume	10-20 gals/cu.ft. (1-3 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	> 30 minutes	Rinse Volume	35-60 gals/cu.ft. (5-8 BV)



PACKAGING**Standard**

1 cu.ft. Bag | 7 cu.ft. Drum

5 cu.ft. Drum | 42 cu.ft. Supersack

Metric

140L Drum | 1000 L Supersack

SAFETY DATA SHEETS (SDS)

Safety Data Sheets (SDS) 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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