

# Resinex™ NR-1

## Nitrate removal from potable water

**Resinex™ NR-1** is a strongly basic macroporous-type anion exchange resin specially developed for selective nitrate removal from potable water in presence of high levels of sulphates. **Resinex™ NR-1** offers a superior operating capacity and an excellent selectivity to nitrate for economical treatment in co-flow and counter-flow systems.

### Typical Properties

Type	Crosslinked polystyrene divinylbenzene
Form	Macroporous, milky white, spherical beads
Functional group	Quaternary Ammonium
Whole bead count	95% min.
Ionic form, as shipped	Cl <sup>-</sup>
Bead size	16x40 US mesh (0.42-1.25 mm)
Effective size	0.40-0.75 mm
Bulk density	700 kg/m <sup>3</sup>
Real density	1.07 g/cm <sup>3</sup>
Water retention	50-60%
Total capacity	0.80 eq/l min.
Stability, temperature	100°C max. in Cl <sup>-</sup> form
Stability, pH	0-14

### Standard Design Conditions

Bed depth	>700 mm
Service flow rate	8-40 l/h/l
Backwash expansion	50-75%

### Key Features and Benefits

- **High Integrity Beads**  
Excellent resistance to mechanical degradation ensures low pressure drop
- **High Selectivity To Nitrate**  
To comply with local legislation
- **High Operating Capacity**  
Economical advantage
- **Can Be Used Directly In Cartridges**  
Point-of-entry and Point-of-use

### Typical Applications

- Nitrate removal from drinking water

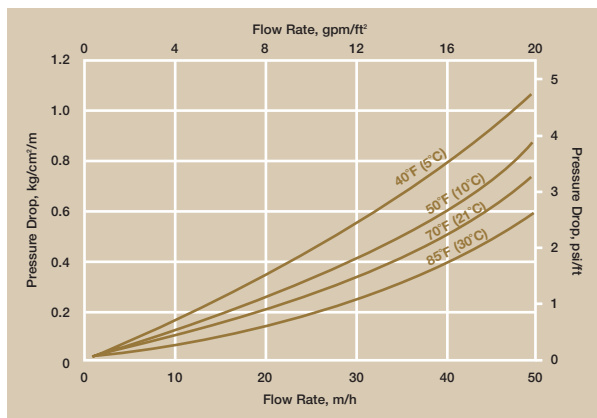
### Standard Packaging

- 25 lit. PE valve bags
- 1000 lit. big bags

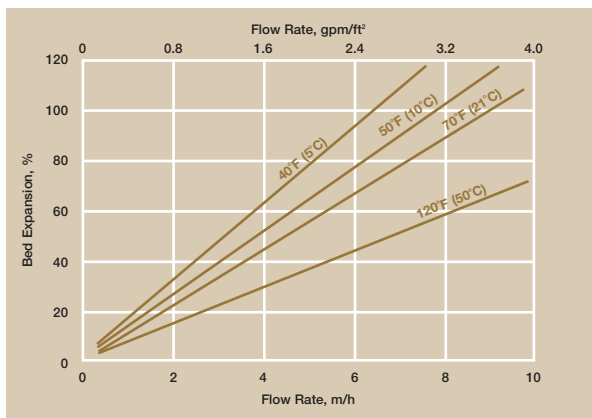
## Resinex™ NR-1

Denitrification resin for potable water

### Pressure Drop



### Backwash Expansion



### Standard Regeneration Parameters

Regeneration	Co-Flow
Concentration	4% NaCl
Level	150-200 g/l
Flow rate regenerant	4-6 BVH
Contact time regeneration	30-60 min.
Flow rate rinse	2-6 BVH
Rinse water required	2 BV

### Product Packaging



25 lit. polyethylene valve bags,  
48 bags per pallet



Polypropylene FIBCs  
(big bags), 1000 lit.



**NOTICE** Jacobi Carbons reserves the right to change product specifications without prior notification. The information contained in this datasheet is intended to assist a customer in the evaluation and selection of products supplied by Jacobi Carbons. The customer is responsible for determining whether products and the information contained in this document are appropriate for the customer's use. Jacobi Carbons assumes no obligation or liability for the usage of the information in this datasheet, no guarantees or warranties, expressed or implied, are provided. Jacobi Carbons disclaims responsibility and the user must accept full responsibility for performance of systems based on this data.

**CAUTION** Strong oxidizing agents such as nitric acid can react violently with ion exchange resins and cause explosive type reactions. Before using strong oxidants, consult sources knowledgeable in the handling of these materials.



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