

# Resinex™ A-4

## Strong base anion exchange resin

**Resinex™ A-4** is a high purity, premium grade, strongly basic gel-type anion exchange resin type 1, specially designed for achieving very low silica leakage in water demineralisation applications. The product is a bead type, crosslinked polystyrene-divinylbenzene copolymer resin that offers a good resistance to physical and mechanical breakage and organic fouling. The selected bead distribution of **Resinex™ A-4** is especially adapted for all modern counter-current systems (i.e. Schwebbett, UPCORE,..).

### Typical Properties

Type	Crosslinked polystyrene divinylbenzene
Form	gel-type, white, spherical beads
Functional group	Quarternary Ammonium, Type 1
Whole bead count	95% min.
Ionic form, as shipped	Cl <sup>-</sup>
Bead size	0.42 - 1.25 mm
Uniformity coefficient	1.60 max.
Bulk density, as shipped	670 kg/m <sup>3</sup>
Real density	1.06 g/cm <sup>3</sup>
Water retention	50 - 56%
Total capacity (Cl <sup>-</sup> form)	1.30 eq/l min.
Volume change Cl <sup>-</sup> → OH <sup>-</sup>	30% max.
Stability, temperature	60°C max.
Stability, pH	0 - 14

### Standard Design Conditions

Bed depth	> 750 mm
Service flow rate	8 - 40 BV/h
Backwash expansion	50 - 75%

### Key Features and Benefits

- **High Integrity Beads**  
Excellent resistance to mechanical degradation ensures low pressure drop
- **Low Silica Leakage**
- **Optimized Caustic Soda Consumption**  
Economical advantage
- **Resistance To Osmotic Shock**  
Extended lifetime and very low number of broken beads

### Typical Applications

- Demineralisation in industrial water treatment systems together with **Resinex™ K-8**
- Polishing mixed-bed when used in combination with **Resinex™ K-8**

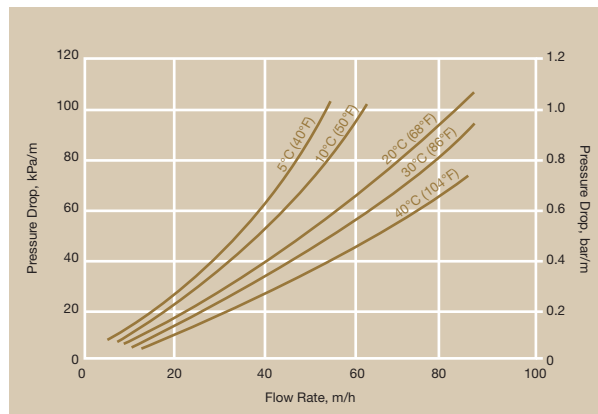
### Standard Packaging

- 25 lit. PE valve bag
- 1000 litre big bag

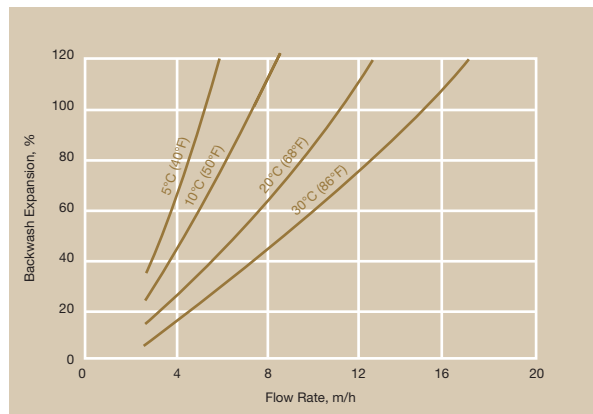
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### Pressure Drop



### Backwash Expansion



### Standard Regeneration Parameters

### Co-Flow

### Counter-Flow

Concentration	4% NaOH	2% NaOH
Level	70-100 g/l	50-80 g/l
Flow rate regenerant	4-6 BV/h	6-8 BV/h
Contact time regenerant	30-60 min.	20-40 min.
Flow rate slow rinse	4-6 BV/h	6-8 BV/h
Slow rinse water required	2-4 BV	2 BV
Flow rate fast rinse	10-30 BV/h	10-30 BV/h
Fast rinse water required	6-10 BV	6-10 BV

### Product Packing



25 lit. polyethylene valve bag  
48 bags per pallet



Polypropylene FIBCs  
(big bag), 1.000 lit.



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