Resinex™
Ion Exchange Resin

Resinex™ AP-21

Strong base anion exchange resin

Resinex™ AP-21 is a high purity, premium grade, strongly basic macroporous anion exchange resin type 2. The macroporous crosslinked matrix offers a very high resistance to physical breakage and organic fouling. Its remarkable physical stability together with the low regenerant consumption makes it highly suitable for industrial applications especially for surface water treatment.
The selected bead distribution of Resinex™ AP-21 is especially adapted for all modern counter-current systems (i.e. Schwebebett, UPCORE,..).

Typical Properties

Type	Crosslinked polystyrene divinylbenzene
Form	Macroporous, milky white, spherical beads
Functional group	Quaternary amine, Type II
Whole bead count	95% min.
Ionic form, as shipped	Cl^-
Bead size	0.42 - 1.25 mm
Uniformity coefficient	1.20 max.
Bulk density, as shipped	690 kg/m^3
Real density	1.10 g/cm^3
Water retention	47 - 57%
Total capacity (Cl^- form)	1.15 eq/l min.
Volume change $Cl^- \rightarrow OH^-$	15% max.
Stability, temperature	80°C max.
Stability, pH	0 - 14

Standard Design Conditions

Bed depth	> 700 mm
Service flow rate	8 - 55 BV/h
Backwash expansion	50 - 75%

Key Features and Benefits

- **High Integrity Beads**
  Excellent resistance to mechanical degradation ensures low pressure drop
- **Excellent Resistance To Organic Fouling**
  Removable organics
- **Superior Regeneration Efficiency**
  Low regenerant consumption
- **Selected Bead Size**
  Lower pressure drop and regenerant consumption

Typical Applications

- Demineralisation in industrial water treatment systems, especially in the presence of high organic loadings
- Demineralisation and polishing when used in combination with Resinex™ K-8

Standard Packaging

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

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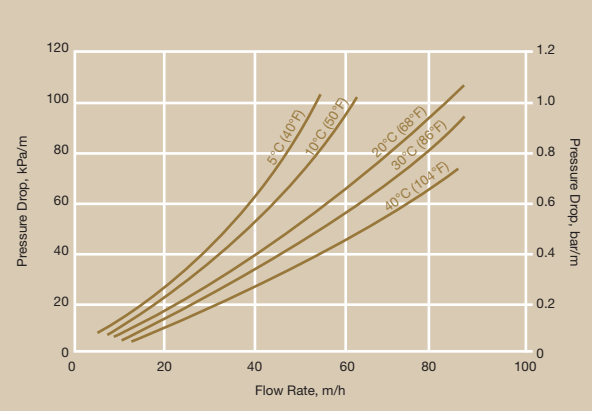
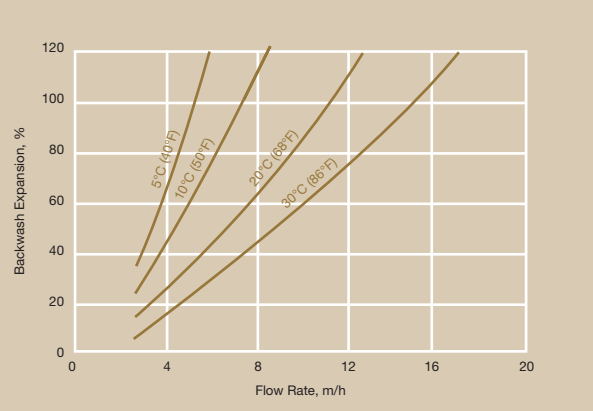
Pressure Drop



Backwash Expansion



Standard Regeneration Parameters	Co-Flow	Counter-Flow
Concentration	4% NaOH	2% NaOH
Level	80-130 g/l	55-75 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

The use of a weak base solution such as ammonia or sodium carbonate as a regenerant is an alternative to caustic soda. Please contact your nearest Jacobi Carbons sales office for further information.

Product Packing

25 lit. polyethylene valve bag
48 bags per pallet

Polypropylene FIBCs
(big bag), 1.000 lit.

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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