Resinex™
Ion Exchange Resin

Resinex™ CH-12

Weak acidic cation exchange resin

Resinex™ CH-12 is a high purity, premium grade, weakly acidic macroporous type cation exchange resin with Aminomethylphosphonic groups. This product is especially designed to be used in industrial applications such as softening of brine solutions and for the selective extraction of heavy metal cations in the following order:
UO_2^{2+} - Pb^{2+} - Cu^{2+} - Ni^{2+} - Cd^{2+} - Co^{2+} - Ca^{2+} - Mg^{2+} - Sr^{2+} - Ba^{2+}
Resinex™ CH-12 offers a superior mechanical and chemical resistance which guaranty an economical advantage and an extended lifetime.

Typical Properties

Type	Crosslinked polystyrene divinylbenzene
Form	macroporous, milky white, spherical beads
Functional group	Amonimethylphosphonic acid
Whole bead count	95% min.
Ionic form, as shipped	Na^+
Bead size	0.315 - 1.25 mm
Uniformity coefficient	1.60 max.
Bulk density, as shipped	750 kg/m^3
Real density	1.20 g/cm^3
Water retention	52 - 58%
Total capacity	Chelated Cu - 0.50 eq/l min.
Stability, temperature	0 - 100°C
Stability, pH	0 - 14

Standard Design Conditions

Bed depth	> 1.000 mm
Service flow rate	15 - 45 BV/h
pH work range (Brine)	8 - 11
Operating temperature (Brine)	60 - 80°C

Key Features and Benefits

- **High Integrity Beads**
  Excellent resistance to mechanical degradation ensures low pressure drop
- **High Capacity for Ca^{2+} and Mg^{2+}**
  Economical advantage
- **High Adsorption Capacity**
  Efficient removal of heavy metal cations
- **Resistance To Osmotic Shock**
  Extended lifetime and very low number of broken beads

Typical Applications

- Selective removal of heavy metals from aqueous solutions
- Softening of brine solution in the Chloro-alkali electrolysis

Standard Packaging

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

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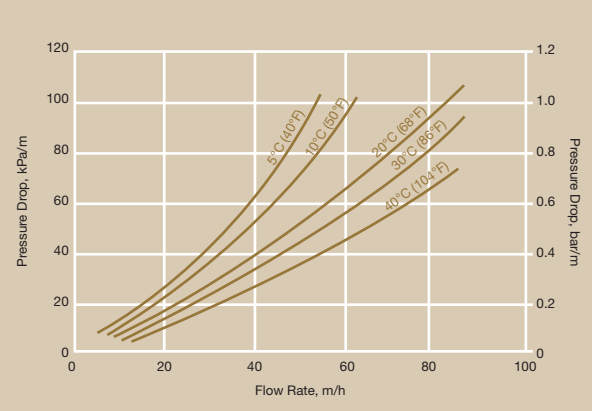
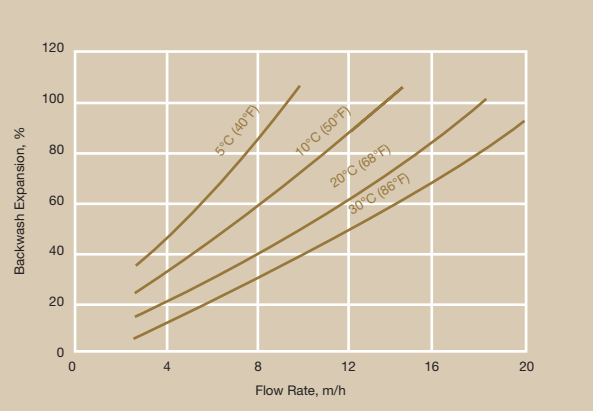
Pressure Drop



Backwash Expansion



Standard Regeneration Parameters	HCl	H_2SO_4
Concentration	7.5%	10%
Level	145 g/l	250 g/l
Flow rate regenerant	5 m/h	5 m/h
Flow rate slow rinse	5 m/h	5 m/h
Backwash expansion	60% min.	60% min
Backwash linear velocity	10 m/h	10 m/h
Conditioning (NaOH)	Mono-Na	Di-Na
Conditioning - level	45 g/l	90 g/l
Conditioning - concentration	4%	4%
Conditioning - linear velocity	5 m/h	5 m/h
Rinsing	5 m/h	5 m/h
Rinse water requirement	4 BV	4 BV

Product Packing

25 lit. polyethylene valve bag
48 bags per pallet

Polypropylene FIBCs
(big bag), 1.000 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 customers 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.

LENNTECH
info@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289

Jacobi

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