ROHM AND HAAS | Ion Exchange Resins

PRODUCT DATA SHEET

AMBERLITE™ IRA900 Cl

Industrial Grade Strong Base Anion Exchanger

AMBERLITE IRA900 Cl resin is a macroreticular polystyrene type 1 strong base anion exchange resin containing quaternary ammonium groups. This allows complete removal of all anions, including weakly dissociated ions such as silica. The macroreticular structure combined with the strong basicity permits the removal of large size soluble organic molecules. In addition the macroreticular structure imparts superior resistance to mechanical and osmotic shock.

PROPERTIES

Physical form	Tan spherical beads
Matrix	Styrene divinylbenzene copolymer
Functional group	Trimethyl ammonium
Ionic form as shipped	Chloride
Total exchange capacity [1]	≥ 1.00 eq/L (Cl^- form)
Moisture holding capacity [1]	58 to 64 % (Cl^- form)
Shipping weight	700 g/L
Particle size	
Uniformity coefficient [1]	≤ 1.80
Harmonic mean size [1]	0.650 to 0.820 mm
< 0.300 mm [1]	0.5 % max
Reversible swelling	$Cl^- \rightarrow OH^-$ ≤ 25 %

[1] *Contractual value*
Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature	60 °C
Minimum bed depth	700 mm
Service flow rate	up to 120 BV*/h
Regeneration	
Regenerant	NaOH
Level	50 to 150 g/L
Concentration	2 to 4 %
Minimum contact time	30 minutes
Slow rinse	2 BV at regeneration flow rate
Fast rinse	4 to 8 BV at service flow rate

** 1 BV (Bed Volume) = 1 m^3 solution per m^3 resin*

APPLICATIONS

Due to its macroreticular structure, AMBERLITE IRA900 Cl resin is useful in water treatment applications where organic fouling is a concern for strong base, type 1, resins. AMBERLITE IRA900 Cl resin also can be used as an organic scavenger placed in front of a deionization system. Working in the chloride form, it removes the natural organic substances from the raw water, protecting subsequent anion exchange resins from possible irreversible organic fouling.

PERFORMANCE

The engineering data sheet EDS 0258 A provides information to calculate the operating capacity and silica leakage of AMBERLITE IRA900 Cl resin used in water treatment.

LIMITS OF USE

AMBERLITE IRA900 Cl resin is suitable for industrial uses. For all other specific applications such as pharmaceutical, food processing or potable water applications, it is recommended that all potential users seek advice from Rohm and Haas in order to determine the best resin choice and optimum operating conditions.

HYDRAULIC CHARACTERISTICS

Figure 1 shows the bed expansion of AMBERLITE IRA900 Cl resin, as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERLITE IRA900 Cl resin, as a function of service flow rate and water temperature. Pressure drop data are valid at the start of the service run with clear water and a correctly classified bed.

Figure 1 : Bed Expansion

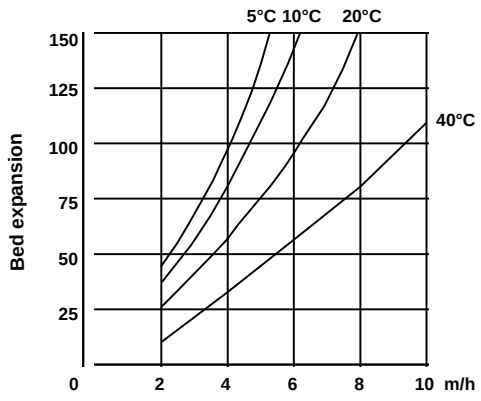
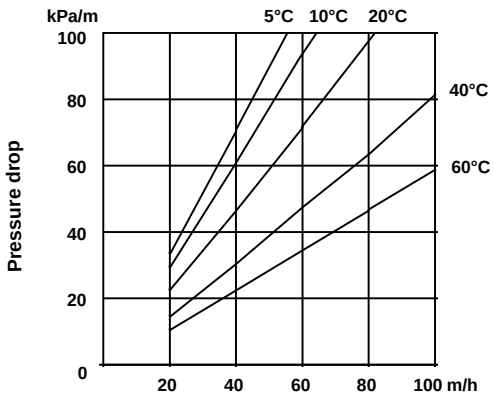


Figure 2 : Pressure Drop



All our products are produced in ISO 9001 certified manufacturing facilities.

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