PRODUCT DATA SHEET

AMBERLITE™ IR120 Na

Industrial Grade Strong Acid Cation Exchanger

AMBERLITE IR120 Na resin is a gel type strongly acidic cation exchange resin of the sulfonated polystyrene type. It is used for water softening (in Na^+ form) as well as for water demineralisation (in H^+ form) in co-flow regenerated units. AMBERLITE IR120 Na resin is an excellent general purpose cation exchange resin that can be used for a wide variety of industrial water treatment applications including both softening and demineralisation.

PROPERTIES

Physical form	Amber spherical beads
Matrix	Styrene divinylbenzene copolymer
Functional group	Sulfonate
Ionic form as shipped	Na^+
Total exchange capacity [1]	≥ 2.00 eq/L (Na^+ form)
Moisture holding capacity [1]	45 to 50 % (Na^+ form)
Shipping weight	840 g/L
Particle size	
Uniformity coefficient [1]	≤ 1.9
Harmonic mean size [1]	0.600 to 0.800 mm
< 0.300 mm [1]	2 % max
Maximum reversible swelling	$Na^+ \rightarrow H^+$ ≤ 11 %

[1] *Contractual value*

Test methods available upon request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature	135 °C		
Minimum bed depth	700 mm		
Service flow rate	5 to 40 BV*/h		
Regeneration			
Regenerant	HCl	H_2SO_4	NaCl
Level (g/L)	50 to 150	60 to 240	80 to 250
Concentration (%)	5 to 8	0.7 to 6	10
Minimum contact time	30 minutes		
Slow rinse	2 BV at regeneration flow rate		
Fast rinse	2 to 4 BV at service flow rate		

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

PERFORMANCE

The operating capacity depends on several factors such as the water analysis and the level of regeneration. The data to calculate the operating capacity and the ionic leakage with co-flow regeneration are given in the Engineering Data Sheets: EDS 0262 A, EDS 0264 A and EDS 0265 A.

LIMITS OF USE

AMBERLITE IR120 Na resin is suitable for industrial uses. For 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 IR120 Na resin, as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERLITE IR120 Na 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

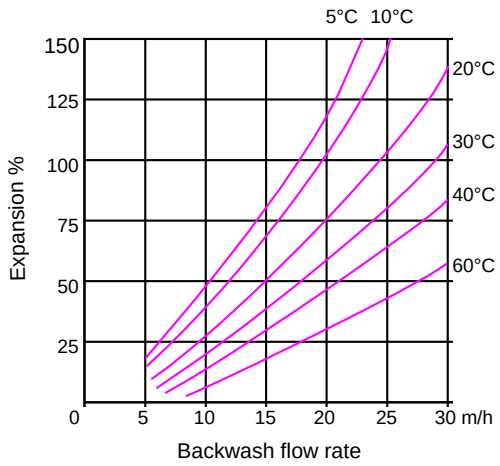
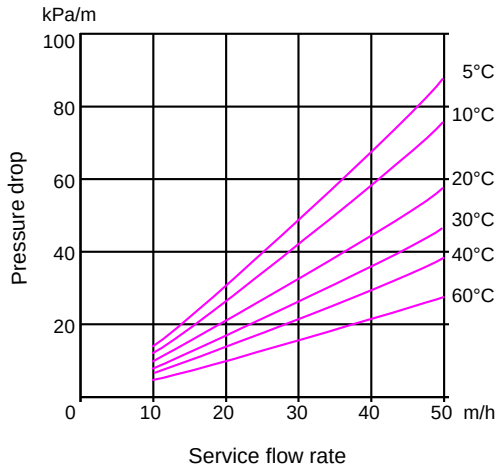


Figure 2: Pressure Drop



All our products are manufactured in ISO 9001 certified facilities.

Rohm and Haas/Ion Exchange Resins - Philadelphia, PA - Tel. (800) RH AMBER - Fax: (215) 409-4534
Rohm and Haas/Ion Exchange Resins - 75579 Paris Cedex 12 - Tel. (33) 1 40 02 50 00 - Fax : 1 43 45 28 19

htpp://www.amberlite.com

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