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PRODUCT DATA SHEET

AMBERJET™ 1000 H

Industrial Grade Strong Acid Cation Exchanger

AMBERJET 1000 H resin is a uniform particle size, high quality, strong acid cation exchanger designed for use in all general demineralisation systems. The uniformity and mean particle size of AMBERJET 1000 H have been optimised for use in industrial demineralisation equipment. AMBERJET 1000 H can be directly substituted for conventional gel cation exchange resin in new equipment and in re-beds of existing installations.

PROPERTIES

Physical form	Amber spherical beads
Matrix	Styrene divinylbenzene copolymer
Functional group	Sulfonic acid
Ionic form as shipped	H^+
Total exchange capacity [1]	≥ 1.80 eq/L (H^+ form) - ≥ 2.00 eq/L (Na^+ form)
Moisture holding capacity [1]	50 to 58 % (H^+ form)
Shipping weight	800 g/L
Specific gravity	1.18 to 1.22 (H^+ form)
Particle size	
Uniformity coefficient [1]	≤ 1.3
Harmonic mean size [1]	0.620 – 0.800 mm
< 0.425 mm [1]	≤ 2 %
Maximum reversible swelling	$Na^+ \rightarrow H^+$ < 10 %

[1] *Contractual value*

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature	135 °C	
Minimum bed depth	800 mm	
Service flow rate	5 to 40 BV*/h	
Regeneration		
Regenerant	HCl	H_2SO_4
Level (g/L)	40 to 150	40 to 200
Concentration (%)	4 to 10	0.7 to 8
Minimum contact time	20 minutes	
Slow rinse	2 BV at regeneration flow rate	
Fast rinse	1 to 3 BV at service flow rate	

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

PERFORMANCE

Operating capacity and sodium leakage depend on several factors such as water analysis, temperature and regenerant level. The engineering data sheets EDS 0762 A, 0763 A, 0764 A and 0765 A, provide information to calculate them with hydrochloric and sulphuric acid, and co-flow or reverse flow regeneration.

LIMITS OF USE

AMBERJET 1000 H 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 AMBERJET 1000 H resin as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERJET 1000 H 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.

Fig. 1 : Bed Expansion

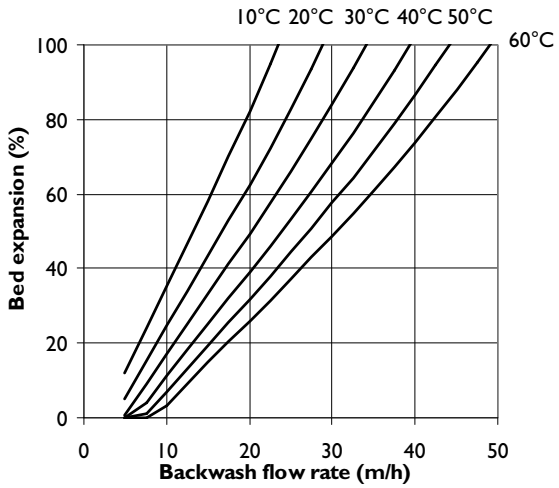
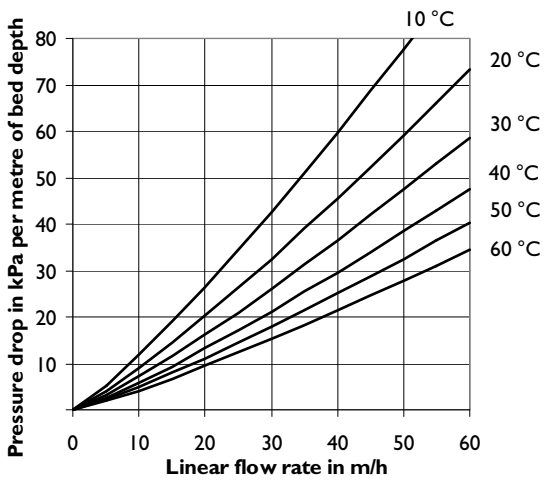


Fig. 2 : Pressure Drop



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