AMBERJET® 4200 Cl

Industrial Grade Strong Base Anion Exchanger

PRODUCT DATA SHEET

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AMBERJET 4200 Cl is a uniform particle size, high quality, strong base type 1 anion exchanger designed for use in all general demineralisation systems. The uniformity and mean particle size of AMBERJET 4200 Cl have been optimised for use in industrial equipment including mixed beds, when paired with AMBERJET 1200 H or AMBERJET 1200 Na. AMBERJET 4200 Cl can be directly substituted for conventional gel anion exchange resin in new equipment and in rebeds of existing demineralisers.

PROPERTIES

Matrix	Styrene divinylbenzene copolymer
Functional groups	$-N^+(CH_3)_3$
Physical form	Insoluble, yellow transparent beads
Ionic form as shipped	Cl^-
Total exchange capacity [1]	≥ 1.30 eq / L (Cl^- form)
Moisture holding capacity [1]	49 to 55 % (Cl^- form)
Specific gravity	1.06 to 1.08 (Cl^- form)
Shipping weight	670 g / L
Particle size	
Uniformity coefficient [1]	≤ 1.25
Harmonic mean size	600 to 800 µm
Fine contents [1]	< 0.425 mm : 0.5 % max
Coarse beads	> 0.850 mm : 5.0 % max
Maximum reversible swelling	$Cl^- \rightarrow OH^-$: about 30 %

[1] *Contractual value*

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Minimum bed depth	800 mm
Service flow rate	5 to 50 BV / h
Maximum linear velocity	60 m / h
Regenerant	NaOH
Level	40 to 100 g / L
Concentration	2 to 5 %
Flow rate	2 to 8 BV* / h
Minimum contact time	20 minutes
Slow rinse	2 BV at regeneration flow rate
Fast rinse	3 to 6 BV at service flow rate

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

PERFORMANCE

Due to its high basicity AMBERJET 4200 Cl has a very good affinity for weak acids so that extremely low silica leakage values in the ppb range are obtained with reverse flow regeneration. Operating capacity and silica leakage depend on several factors such as water analysis, temperature and regenerant level. The engineering data sheets EDS 0357 A and 0358 A provide information to calculate them.

LIMITS OF USE

AMBERJET 4200 Cl 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 4200 Cl as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERJET 4200 Cl, as a function of service flow rate and water temperature. Pressure drop data are valid at the start of the service run with a clear water and a correctly classified bed.

Fig. 1 : Bed Expansion

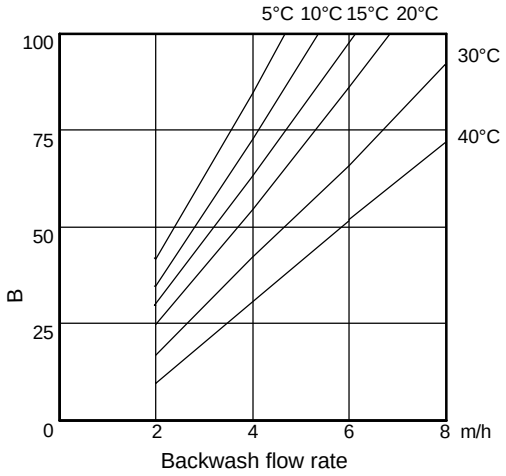
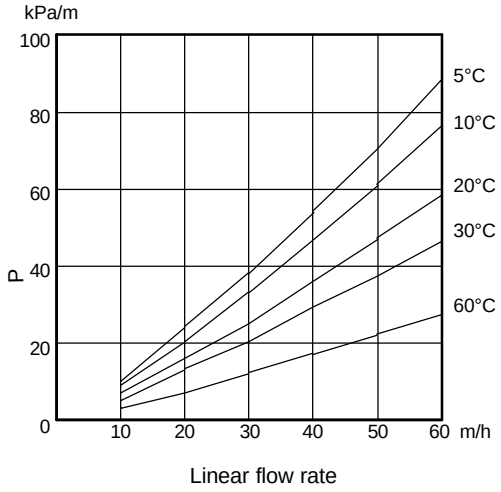


Fig. 2 : Pressure Drop



All our products are produced in ISO 9002 certified manufacturing facilities.

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