



# AMBERJET® 1200 H

Industrial Grade Strong Acid Cation Exchanger

## PRODUCT DATA SHEET

AMBERJET 1200 H 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 1200 H have been optimised for use

in industrial demineralisation equipment including mixed beds when paired with AMBERJET 4200 Cl. AMBERJET 1200 H can be directly substituted for conventional gel cation exchange resin in new equipment and in rebeds of existing installations.

## PROPERTIES

Matrix _____	Styrene divinylbenzene copolymer
Functional groups _____	-SO <sub>3</sub> -
Physical form _____	Insoluble, amber beads
Ionic form as shipped _____	H <sup>+</sup>
Total exchange capacity <sup>[1]</sup> _____	≥ 1.8 eq/L (H <sup>+</sup> form) - ≥ 2.0 eq/L (Na <sup>+</sup> form)
Moisture holding capacity <sup>[1]</sup> _____	49 to 55 % (H <sup>+</sup> form)
Shipping weight _____	800 g/L
Specific gravity _____	1.18 to 1.22 (H <sup>+</sup> form)
Uniformity coefficient <sup>[1]</sup> _____	≤ 1.2
Harmonic mean size _____	630 ± 50 µm
Fines content <sup>[1]</sup> _____	< 0.300 mm : 0.1 % max
Coarse beads _____	> 0.850 mm : 10 % max
Maximum reversible swelling _____	Na <sup>+</sup> → H <sup>+</sup> : 10 %

<sup>[1]</sup> 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 service velocity _____	60 m/h
Regenerant _____	HCl          H <sub>2</sub> SO <sub>4</sub>
Level _____	40 to 150    40 to 200
Concentration _____	4 to 10      1 to 8
Flow rate _____	2 to 5        2 to 20
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<sup>3</sup> solution per m<sup>3</sup> resin

## PERFORMANCE

Operating capacity and sodium leakage depend on several factors such as water analysis, temperature and regenerant level. The engineering data sheets EDS 0355 A, 0356 A, 0359 A, and 0360 A, provide information to calculate them.

## LIMITS OF USE

AMBERJET 1200 H 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 1200 H as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERJET 1200 H, 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

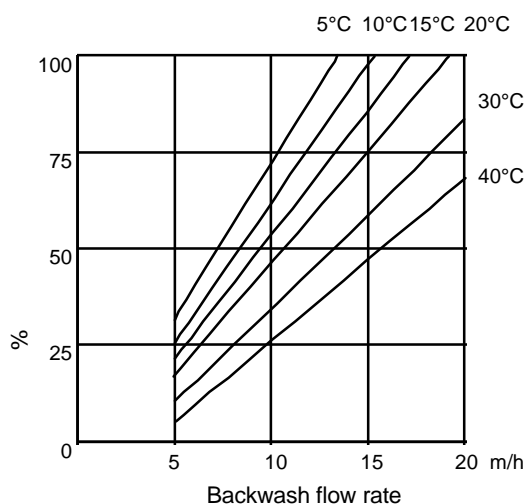
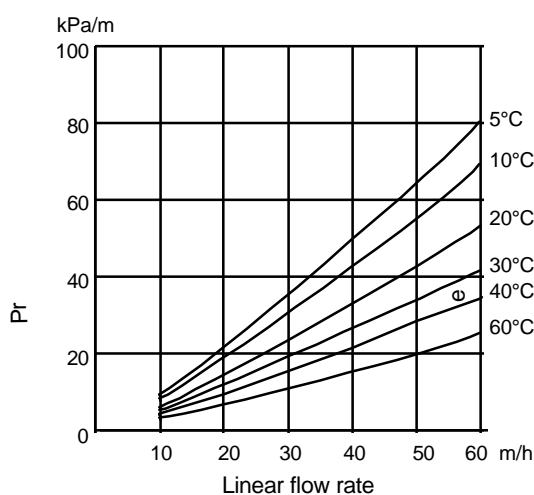


Fig. 2 : Pressure Drop



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

Rohm and Haas/Ion Exchange Resins - Philadelphia, PA - Tel. (800) RH AMBER - Fax: (215) 537-4157  
Rohm and Haas/Ion Exchange Resins - 75579 Paris Cedex 12 - Tel. (33) 1 40 02 50 00 - Fax : 1 43 45 28 19

WEB SITE: <http://www.rohmhaas.com/ionexchange>



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Ion exchange resins and polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-products must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use. The user must ensure compliance with all prudent safety standards and regulatory requirements governing the application. Except where specifically otherwise stated, Rohm and Haas Company does not recommend its ion exchange resins or polymeric adsorbents, as supplied, as being suitable or appropriately pure for any particular use. Consult your Rohm and Haas technical representative for further information. Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Nitric acid and other strong oxidising agents can cause explosive type reactions when mixed with ion exchange resins. Proper design of process equipment to prevent rapid buildup of pressure is necessary if use of an oxidising agent such as nitric acid is contemplated. Before using strong oxidising agents in contact with Ion Exchange Resins, consult sources knowledgeable in the handling of these materials.

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