



AMBERJET® I200 Na

Strong Acid Cation Exchanger

PRODUCT DATA SHEET

AMBERJET 1200 Na is a uniform particle size, high quality, strong acid cation exchanger designed for use in all water treatment applications : softening as well as demineralization. The uniformity and mean particle size of AMBERJET 1200 Na have been optimized for use in industrial equipment.

In H⁺ cycle, it can be used in mixed bed applications paired with AMBERJET 4200 Cl. AMBERJET 1200 Na 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 _____	Sulfonic acid
Physical Form _____	Insoluble, amber beads
Ionic Form as Shipped _____	Sodium
Total Exchange Capacity _____	2.0 meq/ml minimum (Na ⁺ form)
Moisture Holding Capacity _____	43 to 47% (Na ⁺ form)
Shipping Weight _____	53 lbs/ft ³
Harmonic Mean Size _____	0.57 to 0.67 mm
Uniformity Coefficient _____	1.2 maximum
Maximum Reversible Swelling _____	Na ⁺ → H ⁺ : approximately 10 %

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

pH Range _____	0 to 14
Maximum Operating Temperature _____	250 °F
Minimum Bed Depth _____	24 inches minimum
Service Flow Rate _____	1 to 6 gpm/ft ³
Maximum Service Velocity _____	25 gpm/ft ²
Regenerants (100 %) _____	NaCl HCl H₂SO₄
Flow Rate (gpm/ft ³) _____	2 to 8 2 to 5 2 to 20
Concentration (%) _____	10 4 to 10 1 to 8
Level (lbs/ft ³) _____	3 to 15 2 to 8 2.5 to 12.5
Minimum Contact Time _____	20 minutes
Slow Rinse _____	15 gal/ft ³ at regeneration flow rate
Fast Rinse _____	8 to 22 gal/ft ³ at service flow rate

PERFORMANCE

Operating capacity and ionic leakage depend on several factors such as water analysis, temperature and regenerant level. Engineering data sheets for AMBERJET 1200 Na provide information to calculate these values.

LIMITS OF USE

AMBERJET 1200 Na 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 Company in order to determine the best resin choice and optimum operating conditions.

HYDRAULIC CHARACTERISTICS

Figure 1 shows the pressure drop data for AMBERJET 1200 Na, 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 2 shows the bed expansion of AMBERJET 1200 Na, as a function of backwash flow rate and water temperature.

Fig. 1 : Pressure Drop

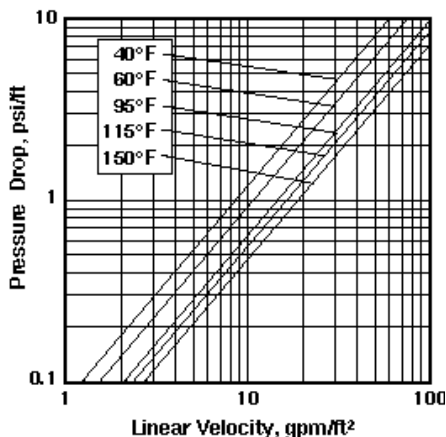
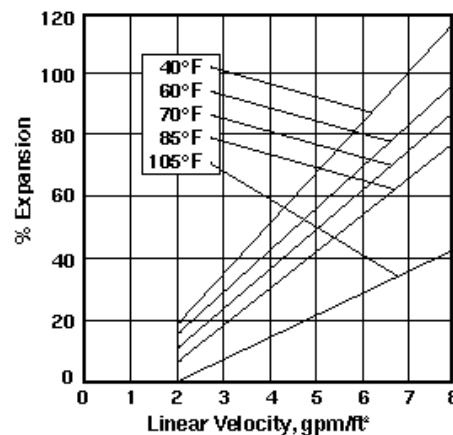


Fig. 2 : Bed Expansion



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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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