

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 ⁺ → 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 ₂ SO 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 m³ solution per m³ 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.

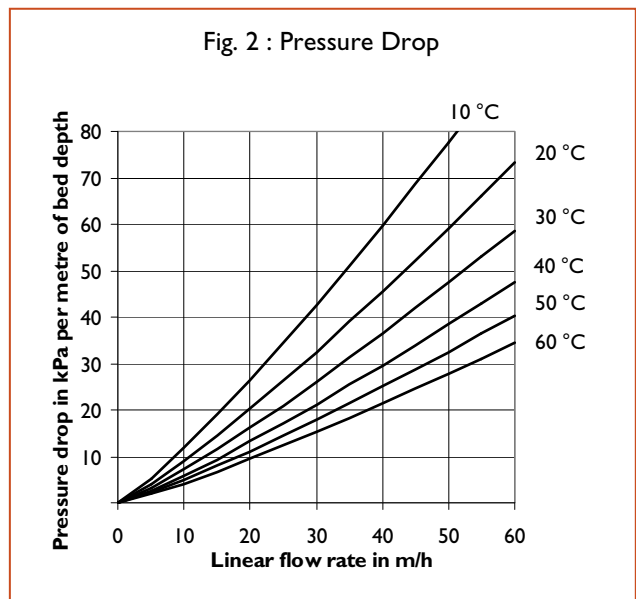
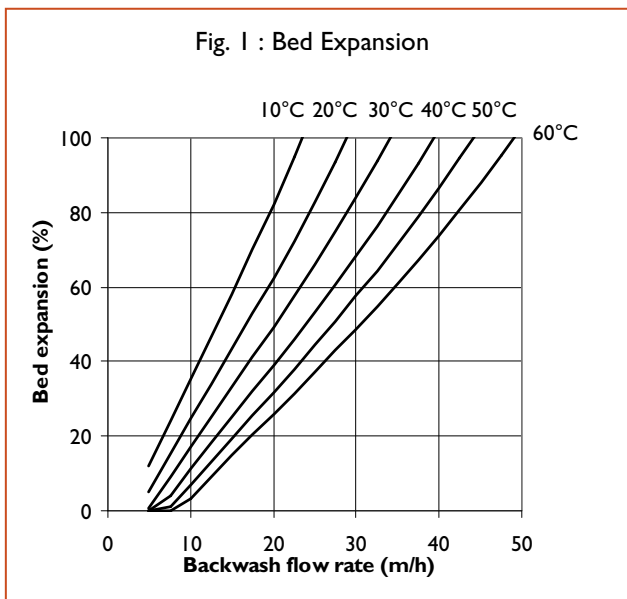
LIMITS OF USE

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.



LENNTECH WATER TREATMENT AND Air purification

ROHM AND HAAS

AMBERJET is a trademark of Rohm and Haas Company and its affiliates, Philadelphia, U.S.A.

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.

Rohm and Haas Company makes no warranties either expressed or implied as to the accuracy or appropriateness of these data and expressly excludes any liability upon Rohm and Haas arising out of its use. We recommend that the prospective users determine for themselves the suitability of Rohm and Haas materials and suggestions for any use prior to their adoption. Suggestions for uses of our products of the inclusion of descriptive material from patents and the citation of specific patents in this publication should not be understood as recommending the use of our products in violation of any patent or as permission or license to use any patents of the Rohm and Haas Company and its affiliates. Material Safety Data Sheets outlining the hazards and handling methods for our products are available on request.