

PRODUCT DATA SHEET

AMBERJET™ I300 H
Industrial Grade Strong Acid Cation Exchanger

AMBERJET 1300 H resin is a uniform particle size, gel type, cation exchange resin designed for use in all demineralisation systems including stratified bed applications. Its sulfonated styrene divinylbenzene copolymer structure is formulated to provide high capacity coupled with exceptional physical and chemical stability.

AMBERJET 1300 H resin offers a cost efficient way to increase operating capacity and reduce chemical usage in cation exchange units. AMBERJET 1300 H resin is also an excellent choice for use in regenerable mixed bed mixed bed applications combined with AMBERJET 4200 or AMBERJET 4400 anion exchangers. The uniform particle size distribution of AMBERJET 1300 H resin has been specifically selected to give optimum performance in AMBERPACK™ and other packed bed systems.

Combined with AMBERLITE™ IRC86SB resin in STRATAPACK™ or STRATABED™ columns,

PROPERTIES

Physical form _____	Dark amber spherical beads
Matrix _____	Styrene divinylbenzene copolymer
Functional group _____	Sulfonic acid
Ionic form as shipped _____	H ⁺
Total exchange capacity ^[1] _____	≥ 2.00 eq/L (H ⁺ form)
Moisture holding capacity ^[1] _____	45 to 51 % (H ⁺ form)
Shipping weight _____	820 g/L
Particle size	
Uniformity coefficient ^[1] _____	≤ 1.20
Harmonic mean size _____	0.60 - 0.70 mm
< 0.300 mm (50 mesh) ⁽¹⁾ : _____	0.1 % max
> 0.850 mm (20 mesh): _____	≤ 10%
Maximum reversible swelling _____	Na ⁺ → H ⁺ < 10 %

^[1] Contractual value
 Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Service flow rate _____	5 to 50 BV*/h	
Regeneration		
Regenerant _____	HCl	H ₂ SO ₄
Level (g/L) _____	50 to 150	60 to 200
Concentration (%) _____	3 to 6	0.8 to 5
Minimum contact time _____	20 minutes	
Slow rinse _____	2 BV at regeneration flow rate	
Fast rinse _____	1 to 3 BV at service flow rate	

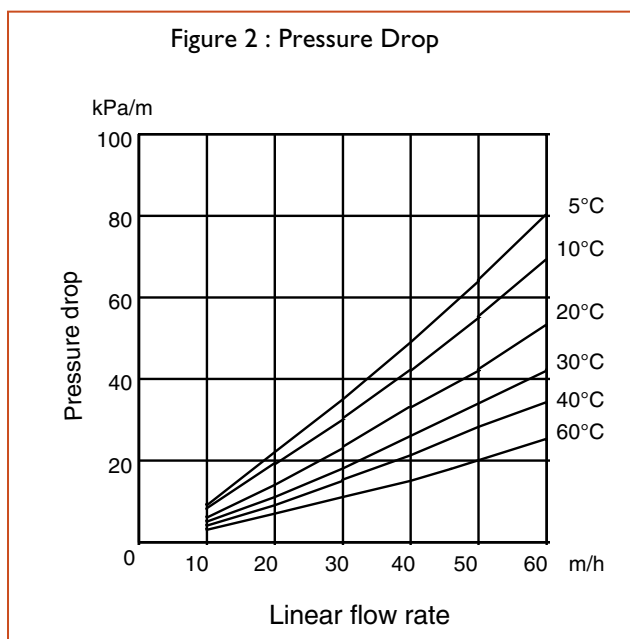
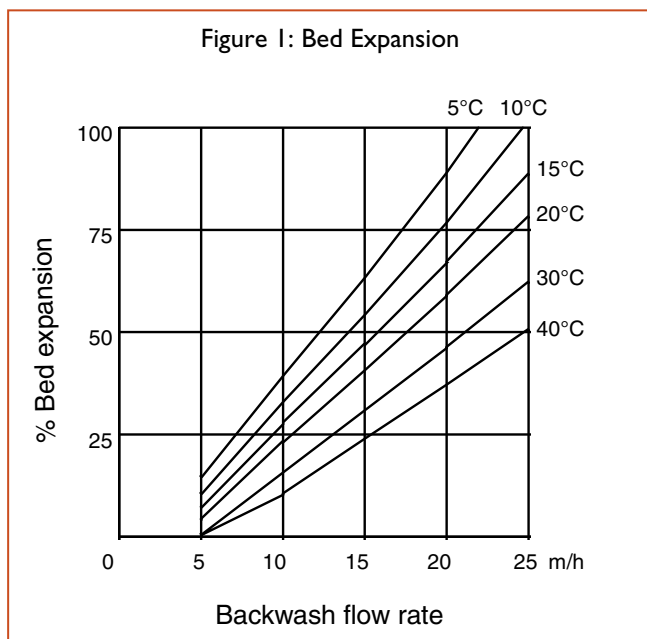
* 1 BV (Bed Volume) = 1 m³ solution per m³ resin

LIMITS OF USE

AMBERJET 1300 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 1300 H resin as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERJET 1300 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.



All our products are manufactured in ISO 9001 certified facilities.

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ROHM and HAAS 

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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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