AMBERJET™ 1500 H
Industrial Grade Strong Acid Cation Exchanger

AMBERJET 1500 H resin is a uniform particle size, premium grade, gel type, cation exchange resin designed to be used in mixed bed applications commonly encountered in power plant, high flow rate condensate polishing. Its sulfonated styrene divinylbenzene copolymer structure is formulated to provide high capacity coupled with exceptional physical and chemical stability. These properties make AMBERJET 1500 H resin the ideal choice for use in regenerable mixed bed applications combined with AMBERJET 4400 resin. The uniform particle size distribution of AMBERJET 1500 H resin has been specifically selected to give optimum performance in AMBERPACK™ systems, reverse flow packed bed demineralisation configuration. AMBERJET 1500 H resin is supplied in the hydrogen form.

PROPERTIES

Matrix ____________________________ Styrene divinylbenzene copolymer
Functional groups _____________________ Sulphonates
Physical form _________________ Dark amber beads
Ionic form as shipped _____________________ H+
Total exchange capacity [1] ______________ 2.0 eq/L (H+ form)
Moisture holding capacity [1] ______________ 45 to 51 % (H+ form)
Specific gravity ___________________ 1.28 to 1.32 (Na+ form)
Shipping weight ___________________ 820 g/L
Particle size
Uniformity coefficient [1] __________ £ 1.20
Harmonic mean size ________________ 650 ± 50 µm
Fine contents [1] ________________ < 0.425 mm : 0.5 % max

Maximum operation temperature __________ 135 °C
Minimum bed depth ________________ 800 mm
Service flow rate (Linear Velocity) ______________ 10 to 120 BV*/h

Regeneration
Regenerant __________________________ HCl  H2SO4
Level (g/L) ______________________ 80 to 200 125 to 250
Concentration (%) __________________ 5 to 6 1.5 to 4
Minimum contact time ______________ 30 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 1500 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 1500 H resin as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERJET 1500 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.

Figure 1: Bed Expansion

Figure 2: Pressure Drop