

AMBERSEP® 900 OH

Strong Base Anion Exchanger

PRODUCT DATA SHEET

AMBERSEP 900 OH is a strongly basic, macroreticular, Type I, quaternary ammonium anion exchange resin specially sized for use in Ambersep resin systems. Its patented macroreticular structure provides the ultimate in physical stability, making Ambersep 900 resin perfect for physically demanding applications such as high-flow rate

condensate polishing. Ambersep 900 resin has a styrene-divinylbenzene polymer matrix which imparts the chemical stability needed for high purity, regenerable mixed bed applications such as the production of ultrapure water for semiconductor manufacturing.

PROPERTIES

Matrix _____	Styrene divinylbenzene copolymer
Functional Groups _____	Type I quaternary ammonium
Physical Form _____	Light tan opaque beads
Ionic Form as Shipped _____	Hydroxide
Total Exchange Capacity _____	0.8 meq/ml minimum (OH ⁻ form)
Moisture Holding Capacity _____	66 to 75 % (OH ⁻ form)
Shipping Weight _____	42 lbs/ft ³
Uniformity Coefficient _____	1.4 maximum
Screen Grading (wet) _____	16 to 45 mesh (US Std Screens)
Screen Analysis _____	5 % maximum on 16 mesh (US Std Screens)
	0.5 % maximum thru 45 mesh (US Std Screens)
Maximum Reversible Swelling _____	Cl ⁻ → OH ⁻ : approximately 20 %

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

pH Range _____	0 to 14
Maximum Operating Temperature _____	140 °F (OH ⁻ form) / 170 °F (Cl ⁻ form)
Minimum Bed Depth _____	24 inches
Service Flow Rate _____	1 to 3 gpm/ft ³
Service Flow Rate (Linear Velocity) _____	10 to 50 gpm/ft ²
Regenerant (100% basis) _____	NaOH
Level _____	4 to 10 lbs/ft ³
Concentration _____	2 to 4 %
Flow Rate _____	0.25 to 1.0 gpm/ft ³
Minimum Contact Time _____	30 minutes
Slow Rinse _____	15 gal/ft ³ at regeneration flow rate
Fast Rinse _____	30 to 60 gal/ft ³ approximate

LIMITS OF USE

AMBERSEP 900 OH 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 as a function of service flow rate and water temperature. Figure 2 shows the bed expansion of AMBERSEP 900 OH, as a function of backwash 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.

Fig. 1 : Pressure Drop

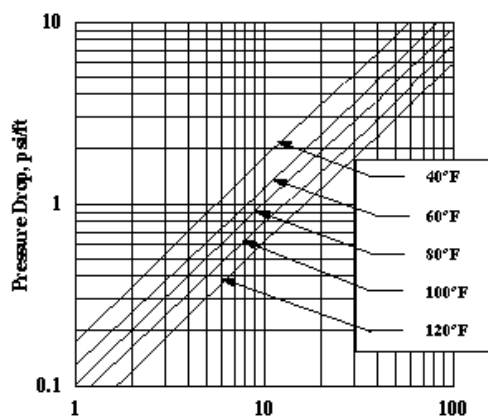
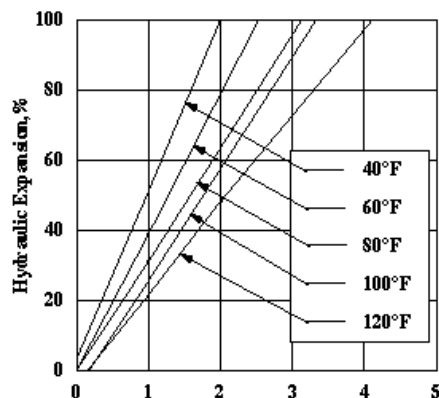


Fig. 2 : Bed Expansion



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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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