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/ft³
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/ft³
Service Flow Rate (Linear Velocity) ___________ 10 to 50 gpm/ft²
Regenerant (100% basis) _____________ NaOH
Level ______________________________ 4 to 10 lbs/ft³
Concentration ________________ 2 to 4%
Flow Rate ___________________________ 0.25 to 1.0 gpm/ft³
Minimum Contact Time ______________ 30 minutes
Slow Rinse ___________________________ 15 gal/ft³ at regeneration flow rate
Fast Rinse ___________________________ 30 to 60 gal/ft³ 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.