

PRODUCT DATA SHEET

AMBERLITE™ IRA958 Cl **Industrial Grade Strong Base Anion Exchanger**

AMBERLITE IRA958 Cl resin is a macroreticular strongly basic anion exchange resin having quaternary ammonium functionality in a crosslinked acrylic polymer matrix. The porous macroreticular structure allows more efficient removal of large organic molecules and provides excellent resistance to physical breakdown by attrition and osmotic shock. The acrylic polymer structure contributes to

excellent desorption of organics during regeneration. AMBERLITE IRA958 Cl resin is particularly useful as an organic scavenger for the adsorption of natural organic matter from surface water. Placed ahead of an ion exchange deionisation system, AMBERLITE IRA958 Cl resin helps prevent organic fouling of the working anion exchange resins of the plant.

PROPERTIES

Physical form _____	White opaque spherical beads
Matrix _____	Crosslinked acrylic macroreticular structure
Functional group _____	Quaternary ammonium
Ionic form as shipped _____	Chloride
Total exchange capacity ^[1] _____	≥ 0.80 eq/L (Cl ⁻ form)
Moisture holding capacity ^[1] _____	66 to 72 % (Cl ⁻ form)
Shipping weight _____	720 g/L
Particle size	
Uniformity coefficient ^[1] _____	≤ 1.8
Harmonic mean size ^[1] _____	630 to 850 µm
< 0.355 mm ^[1] _____	≤ 1.0 %

^[1] Contractual value

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS (SCAVENGER)

Maximum operating temperature _____	80°C (Cl ⁻)
Minimum bed depth _____	600 mm
Service flow rate _____	8 to 40 BV*/h
Regeneration	
Regenerants _____	NaOH + NaCl
Level (g/L) _____	6 to 40 160 to 300
Concentration (%) _____	1 to 2 10
Minimum contact time _____	30 minutes
Slow rinse _____	5 to 10 BV
Fast rinse _____	Same as regenerant for first bed displacement, then same as service flow rate

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

PERFORMANCE (SCAVENGER)

Based on previous experience in industrial installations and laboratory studies, an average capacity for organics of 10 to 15 g (as KMnO_4) per litre of resin can be expected.

This value should be considered as an approximate indication and it is recommended that some column tests be undertaken on site in order to determine the operating capacity of AMBERLITE IRA958 Cl resin for a particular water.

HYDRAULIC CHARACTERISTICS (Water Treatment)

AMBERLITE IRA958 Cl resin gives a pressure drop of about 13 kPa/m bed depth per 10 m/h at 15°C. A backwash flow rate of 6 m/h gives a

bed expansion of about 65 % at 15°C. Pressure drop data are valid at the start of the service run with clear water and a correctly classified bed.

LIMITS OF USE

AMBERLITE IRA958 Cl 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.



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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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