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## Introduction

### AMBERLITE™ IRA958 CI

Industrial Grade Strong Base Anion Exchanger

AMBERLITE IRA958 CI 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 CI 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 CI 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	≥ 0.80 eq/L (Cl <sup>-</sup> form)
Moisture holding capacity	66 to 72 % (Cl <sup>-</sup> form)
Shipping weight	720 g/L
Particle size	
Uniformity coefficient	≤ 1.8
Harmonic mean size	630 to 850 μm < 0.355 mm ≤ 1.0 %

## Suggested Operating Conditions

Maximum operating temperature	80°C (Cl <sup>-</sup> )
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

## Performance (scavenger)

Based on previous experience in industrial installations and laboratory studies, an average capacity for organics of 10 to 15 g (as KMnO<sub>4</sub>) 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 CI resin for a particular water.

## Hydraulic Characteristics

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.

### For more information about DOW™ resins, call the Dow Water & Process Solutions business:

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