



AMBERLITE® IRA410 Cl

Industrial Grade Strong Base Anion Exchanger

PRODUCT DATA SHEET

AMBERLITE IRA410 Cl is a premium grade strongly basic anion exchange resin of the type 2, with a clear gel structure. It is based on crosslinked polystyrene and has a very high bead integrity, good regeneration efficiency and excellent rinse performance.

It is particularly suited for use in two-column water demineralisation plants (one cation, one

anion unit). AMBERLITE IRA410 Cl has a better regeneration efficiency than type 1 resins, resulting in a higher operating capacity. However, its affinity for silica is lower. Therefore, AMBERLITE IRA410 Cl will be mainly used to treat waters with a silica to total anion ratio of less than 30 %. It should be regenerated at ambient temperature.

PROPERTIES

Matrix _____	Styrene divinylbenzene copolymer
Functional groups _____	-N ⁺ (CH ₃) ₂ C ₂ H ₄ OH
Physical form _____	Pale yellow translucent beads
Ionic form as shipped _____	Chloride
Total exchange capacity ^[1] _____	≥ 1.25 eq/L (Cl ⁻ form)
Moisture holding capacity ^[1] _____	45 to 51 % (Cl ⁻ form)
Specific gravity _____	1.085 to 1.115 (Cl ⁻ form)
Shipping weight _____	680 g/L
Particle size _____	
Uniformity coefficient _____	≤ 1.60
Harmonic mean size _____	600 - 750 μm
Fine contents ^[1] _____	< 0.300 mm : 1.0 % max
Coarse beads _____	> 1.180 mm : 5.0 % max
Maximum reversible swelling _____	Cl ⁻ → OH ⁻ : 20 %

^[1] Contractual value

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature _____	35°C
Minimum bed depth _____	700 mm
Service flow rate _____	5 to 40 BV*/h
Regenerant _____	NaOH
Flow rate _____	2 to 8 BV/h
Concentration _____	2 to 4 %
Level _____	40 to 100 g/L
Minimum contact time _____	30 minutes
Slow rinse _____	2 BV at regeneration flow rate
Fast rinse _____	4 to 8 BV at service flow rate

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

