

A-200

Strong-Base Type II Anion-Exchange Resin
(FOR THE TREATMENT OF WATER AT HIGH REGENERATION EFFICIENCY)

Technical Data

PRODUCT DESCRIPTION

Purolite A-200 is a clear gel-type strong-base anion exchanger containing Type-II quaternary ammonium groups. It has excellent operating capacity and good kinetics even when regenerant levels are comparatively low. It also rinses very efficiently after regeneration. It shows good resistance to physical and osmotic shock in normal operation. It is particularly useful in treating feed-waters with a high proportion of Free Mineral Acidity, and in addition it has high reversible sorptive capacity for the complex organic materials, both ionised and un-ionised, which occur in many surface water supplies.

Specially tailored size grades may be used with excellent results in most of the usual ion-exchange column configurations, but they are particularly suitable for deionizing waters in counter-flow operation, where, rinse volumes represent a marked improvement over those of the classical Type-II, Purolite A-300, for example. In a conventional two-stage deionizing plant, its silica-removal properties are comparable with those of any premium Type-II strong-base anion exchanger; however, as with other resins of this type, a polishing mixed-bed is necessary to ensure the lowest levels of residual silica. Like all type-II resins, it is not recommended to expose the hydroxide form of the resin to temperatures above 40° C. This results in gradual loss of strong base functionality.

Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Crosslinked Styrene-Divinylbenzene
Physical Form and Appearance	Amber Coloured Spherical Beads
Whole Bead Count	90% min
Functional Groups	Type 2 Quaternary Ammonium
Ionic Form (as shipped)	Cl ⁻ form
Shipping Weight g/l [lb/ft ³]	680-715 [42.5-44.5]
Screen Size Range (British Standard Screen)	14-52 mesh, wet
(U.S. Standard Screen)	16-50 mesh, wet
Particle Size Range	+1.2 mm <5 %, -0.300 mm <1%
Moisture Retention, Cl ⁻ form	45-51%
Reversible Swelling (Cl ⁻ → OH ⁻)	15%
Specific Gravity, Moist Cl ⁻ Form	1.08
Total Exchange Capacity, Cl ⁻ Form (wet, volumetric)	1.3 eq/l min
(dry, weight)	3.3 eq/kg min
Max. Operating Temperature °C [°F], Cl ⁻ Form	100 [212]
OH ⁻ Form	40 [105]
pH Range (Stability), Cl ⁻ Form	0-14
(Operating), OH ⁻ Form	0-10