Purolite® A400

Gel Type I Strong Base Anion Resin - Chloride Form

Purolite A400 is a clear gel Type 1 strong-base anion exchanger with both high operating capacity and the ability to achieve low residual silica levels. Minimal quantities of caustic soda are required compared with those typical of the classical Type 1 (Purolite A600) quaternary ammonium structure based on polystyrene. It has a clear gel structure, showing excellent regeneration efficiency and rinse characteristics. Purolite A400 functions well both in mixed bed and layered bed demineralizer systems, where specially tailored particle size ranges result in achieving or maintaining good separations. Purolite A400 has exceptional physical stability for a conventional gel-type resin which permits a long life without the development of excessive pressure drop; it also shows good kinetics of exchange, enabling very low concentration levels of both strong and weak acid anions to be achieved at practical flowrates.

Typical Physical and Chemical Characteristics

| Application | Regeneration Efficient Demineralization / Silica Removal |
|---|---|
| Polymer Structure | Gel polystyrene crosslinked with divinylbenzene |
| Appearance | Spherical beads |
| Functional Group | Type 1 Quaternary Ammonium |
| Ionic Form as Shipped | Cl |
| Total Capacity (min.) | 1.3 eq/l (28.4 Kgr/ft ³) (Cl ⁻ form) |
| Moisture Retention, Cl Form | 48 - 54 % |
| Particle Size Range | 300 - 1200 μm |
| <300 µm (max.) | 1 % |
| Uniformity Coefficient (max.) | 1.7 |
| Reversible Swelling, $Cl^{-} \rightarrow OH^{-}$ (max.) | 20 % |
| Specific Gravity | 1.08 |
| Shipping Weight (approx.) | 680 - 715 g/l (42.5 - 44.7 lb/ft ³) |
| Temp Limit, Cl ⁻ Form | 100°C (212°F) |
| Temp Limit, OH ⁻ Form | 60°C (140°F) |
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