

Super Gel Type I Strong Base Anion Exchange Resin

Purolite SGA550 (Cl) is a uniform particle size, SuperGel grade of poly(styrene quaternary amine) anion-exchange resin with a small mean diameter. It is made to specially tailored specifications best suited for demineralization of water in high flow applications for make-up or condensate polishing and other related systems where their consistency of particle size is an important parameter. Its high bead integrity, excellent chemical and physical stability, fast exchange kinetics and controlled bead size distribution play a large part in its successful employment in these applications. The excellent physical stability and osmotic shock resistance of Purolite SugerGel products helps to prevent pressure drop increase during operation. Purolite SGA550 (Cl) is recommended for use in mixed beds together with the uniform particle size cation component Purolite SGC650. The main advantages of a uniform particle size are increased regeneration efficiency, improved operating capacity, improved treated water leakage, better exchange kinetics especially at higher flow rates, reduced chemical consumption, less rinse water demand and better mixed bed separation.

**Basic Features:**

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Application           | Condensate Polishing - Uniform Bead Size        |
| Polymer Structure     | Gel polystyrene crosslinked with divinylbenzene |
| Appearance            | Spherical beads                                 |
| Functional Group      | Type 1 Quaternary Ammonium                      |
| Ionic form as shipped | Cl <sup>-</sup>                                 |

**Typical Physical and Chemical Characteristics:**

|                               |                                   |                               |
|-------------------------------|-----------------------------------|-------------------------------|
| Total Capacity (min.)         | Cl <sup>-</sup>                   | 1.40 eq/l                     |
| Total Capacity (min.)         | Cl <sup>-</sup>                   | 30.57 kGr/ft <sup>3</sup>     |
| Moisture Retention            | Cl <sup>-</sup>                   | 43-48 %                       |
| Mean Size Typical             |                                   | 0.50-0.60 mm                  |
| Uniformity Coefficient (max.) |                                   | 1.10                          |
| Reversible Swelling (max.)    | Cl <sup>-</sup> → OH <sup>-</sup> | 24 %                          |
| Specific Gravity              |                                   | 1.09 g/ml                     |
| Shipping Weight (approx.)     |                                   | 680-710 g/l                   |
| Shipping Weight (approx.)     |                                   | 42.5-44.4 lbs/ft <sup>3</sup> |
| Temp Limit                    | OH <sup>-</sup>                   | 60 °C                         |
| Temp Limit                    | OH <sup>-</sup>                   | 140 °F                        |
| Temp Limit                    | Cl <sup>-</sup>                   | 100 °C                        |
| Temp Limit                    | Cl <sup>-</sup>                   | 212 °F                        |

|           |                 |                  |
|-----------|-----------------|------------------|
| pH Limits |                 | 0-14 (Stability) |
| pH Limits | OH <sup>-</sup> | 1-10 (Operating) |

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