

Macroporous Type I Strong Base Anion Exchange Resin

Purolite A500 DL is a macroporous poly(vinylbenzyl-trimethylammonium) exchanger which has been designed for use as an organic scavenger, e.g. for the removal of tannins, fulvic and humic acids, from industrial and domestic water supplies. It will either replace, or be used as an adjunct to, the traditional carbon adsorbents in special applications. In these, use of this resin is indicated when the requirements are for good thermal stability, together with excellent resistance to osmotic shock, and high reversible sorptive capacity for water-soluble complex organic materials of medium to high molecular weight, whether ionized or un-ionized. The resin is normally worked in the chloride salt form, ahead of conventional deionizing systems, thus protecting the following anion unit or mixed bed from organic fouling and consequent reduction in operating efficiency. Regeneration is effected using 10% NaCl. The incorporation of 1-2% NaOH in the brine promotes the removal of the more strongly-held color bodies. For applications in sugar decolorization, the specially graded Purolite A500PS is recommended. In cases where operation is at temperatures of less than 60°C (140°F), Purolite A860 can also be evaluated. The comparative performance of these two resins depends upon the particular properties of the organic matter being removed. Performance trials over at least 5 cycles are necessary to evaluate the relative merits of the two resins.

**Basic Features:**

Application	Demineralization / Silica Removal - Layered Bed
Polymer Structure	Macroporous 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>	1.15 eq/l
Total Capacity (min.)	Cl <sup>-</sup>	25.11 kGr/ft <sup>3</sup>
Moisture Retention	Cl <sup>-</sup>	53-58 %
Mean Size Typical		0.85-1.00 mm
Uniformity Coefficient (max.)		1.40
Reversible Swelling (max.)	Cl <sup>-</sup> → OH <sup>-</sup>	15 %
Specific Gravity		1.08 g/ml
Shipping Weight (approx.)		670-690 g/l
Temp Limit	OH <sup>-</sup>	65 °C
Temp Limit	OH <sup>-</sup>	150 °F
Temp Limit	Cl <sup>-</sup>	100 °C

USA  
Telephone: (1) 610-668-9090  
Fax: (1) 610-668-8139  
Email: info@puroliteusa.com

Europe  
Telephone: +44 1443 229334  
Fax: +44 1443 227073  
Email: sales@purolite.com

Asia Pacific  
Telephone: +86 571 876 31385  
Fax: +86 571 876 31385  
Email: pultalan@purolitechina.com

Temp Limit	Cl <sup>-</sup>	212 °F
pH Limits		0-14 (Stability)

**USA**  
Telephone: (1) 610-668-9090  
Fax: (1) 610-668-8139  
Email: [info@puroliteusa.com](mailto:info@puroliteusa.com)

**Europe**  
Telephone: +44 1443 229334  
Fax: +44 1443 227073  
Email: [sales@purolite.com](mailto:sales@purolite.com)

**Asia Pacific**  
Telephone: +86 571 876 31385  
Fax: +86 571 876 31385  
Email: [pultalan@purolitechina.com](mailto:pultalan@purolitechina.com)