

Macroporous Type I Strong Base Anion Exchange Resin

Purolite A503 is a macroporous poly(vinylbenzyl-trimethylammonium) exchanger with a large pore structure and exceptionally high operating capacity. It has been designed for use in the demineralization of aqueous solutions containing appreciable quantities of high-molecular weight organic materials of the fulvic or humic acid type. Its resistance to organic fouling is superior to that of the corresponding gel resins, as is its excellent resistance to osmotic and thermal shock. It has the normal thermal stability in most salt forms of the conventional Type 1 resin and good mechanical properties.

Basic Features:

Application	Demineralization - High Operating Capacity
Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Type 1 Quaternary Ammonium
Ionic form as shipped	Cl ⁻

Typical Physical and Chemical Characteristics:

Total Capacity (min.)	Cl ⁻	1 eq/l
Total Capacity (min.)	Cl ⁻	21.83 kGr/ft ³
Moisture Retention	Cl ⁻	61-66 %
Mean Size Typical		0.60-0.85 mm
Uniformity Coefficient (max.)		1.70
Reversible Swelling (max.)	Cl ⁻ → OH ⁻	20 %
Specific Gravity		1.08 g/ml
Shipping Weight (approx.)		670-700 g/l
Temp Limit	OH ⁻	60 °C
Temp Limit	OH ⁻	140 °F
Temp Limit	Cl ⁻	100 °C
Temp Limit	Cl ⁻	212 °F
pH Limits		0-14 (Stability)
pH Limits	H ⁺	0-11 (Operating)

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