

Macroporous Type II Strong Base Anion Exchange Resin

Purolite PFA510 is a macroporous type 2 strong base anion exchange resin, which because of its special narrow size distribution has particularly high operating capacity at lower regeneration levels, where its superior regeneration efficiency is most marked. Its macroporous structure offers excellent resistance to osmotic and physical shock. Purolite PFA 510 has a high operating capacity, especially on high-FMA feedwaters, as well as a high reversible sorptive capacity for complex organic materials, such as the fulvic and humic acids which occur in many surface water supplies. Its resistance to fouling is superior to that of both gel resins and many other typical standard macroporous resins. Consequently higher purity treated water (or other solutions) can generally be obtained. Also rinse volumes, and hence times of rinsing are considerably reduced. In a conventional two-stage deionizing plant, its silica-removal properties are comparable with those of any premium type 2 strong base anion resin of narrow particle size range; however, as with other resins of this type, a polishing mixed-bed is necessary to ensure the lowest levels of residual silica. Purolite PFA510 in the chloride form has a unique ability to remove organic color bodies from polluted waters, pharmaceutical and chemical streams. For these applications warm caustic soda or salt should be used (35-50 °C).

Basic Features:

Application	Demineralization - Uniformly Sized
Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Type 2 Quaternary Ammonium
Ionic form as shipped	Cl ⁻

Typical Physical and Chemical Characteristics:

Total Capacity (min.)	Cl ⁻	1.20 eq/l
Total Capacity (min.)	Cl ⁻	26.20 kGr/ft ³
Moisture Retention	Cl ⁻	44-51 %
Mean Size Typical		0.52-0.62 mm
Uniformity Coefficient (max.)		1.20
Reversible Swelling (max.)	Cl ⁻ → OH ⁻	10 %
Specific Gravity		1.08 g/ml
Shipping Weight (approx.)		670-690 g/l
Temp Limit	OH ⁻	35 °C
Temp Limit	OH ⁻	95 °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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