

Gel Type I Strong Base Anion Exchange Resin

Purolite PFA600/4740 is a gel-type strong base anion exchange resin tailored for extraction of uranyl sulfate and carbonate complexes from the leachates originated from ISL, batch or heap leaching processes. Because its physical structure the resin has particularly high uranium uptake, regeneration efficiency and lower volume of desorbates while desorbates have high uranium concentrations. It is also resistant to silica fouling. Increased capacity allows longer runs, higher throughput and/or smaller resin beds, as required, with improved optimum rates of uranium fixation, desorption and resin regeneration. Thus savings may be expected in operating and capital costs.

Basic Features:

Application	High Capacity For Uranium Recovery - Uniform Bead Size
Polymer Structure	Gel polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Quaternary Ammonium
Ionic form as shipped	Cl ⁻

Typical Physical and Chemical Characteristics:

Total Capacity (min.)	Cl ⁻	1.60 eq/l
Total Capacity (min.)	Cl ⁻	34.90 kGr/ft ³
Moisture Retention	Cl ⁻	40 - 45 %
Mean Size Typical		0.52 - 0.62 mm
Uniformity Coefficient (max.)		1.2
Reversible Swelling (max.)	Cl ⁻ → OH ⁻	20 %
Specific Gravity		1.09 g/ml
Shipping Weight (approx.)		675 - 710 g/l
Shipping Weight (approx.)		42.2 - 44.4 lbs/ft ³
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	OH ⁻	1 - 10 (Operating)