

Macroporous Strong Base Anion Exchange Resin

Purolite A520E is a macroporous strong base anion resin which is specially designed for the removal of nitrates from water for potable processes. The macroporous matrix and special ion exchange group functionality imparts ideal nitrate selectivity to **Purolite A520E** making this resin particularly suitable for nitrate removal even when moderate to high concentrations of sulphate are present. Hence this resin gives superior performance in nitrate removal applications when compared with standard exchange resins. A requirement of the nitrate removal process is to produce potable water meeting the quality standard defined by the European Economic Community in the Directive No. 80/778 of July 1980. This directive limits the nitrates to a maximum admissible concentration (M.A.C.) of 50 mg NO₃/l. The U.S.A. drinking water regulations limit nitrates to 45 mg NO₃/l.

Typical Physical and Chemical Characteristics

BASIC FEATURES:

Application - Nitrate Removal

Polymer Structure - Macroporous polystyrene crosslinked with divinylbenzene

Appearance - Spherical beads

Functional Group - Type 1 Quaternary Ammonium

Ionic Form as Shipped - Cl⁻

PRODUCT INFORMATION:

Total Capacity, Cl ⁻ Form	0.9 eq/l (19.7 Kgr/ft ³)
Moisture Retention, Cl ⁻ Form	50 - 56 %
Particle Size Range	300-1200 µm
<300 µm (max.)	1 %
Uniformity Coefficient (max.)	1.7
Specific Gravity	1.07
Shipping Weight (approx.)	675 - 705 g/l (42.2 - 44.1 lbs/ft ³)
Temp Limit, Cl ⁻ Form	100 °C (212 °F)
pH limits, Stability	0 - 14