PUROLITE
ION EXCHANGE RESINS

Product Data Sheet

# PUROLITE® A500MB

## Strong Base Anion Macroporous

Macroporous Type I Strong Base Anion Exchange Resi

Purolite A500MB is a macroporous poly(vinylbenzyl-trimethylammonium) exchanger in the chloride form and is cross linked with divinylbenzene. Its bead size range is especially tailored for the use as the anion component in mixed bed demineralisation. Separation of the anion and cation components, prior to the regeneration of any mixed bed resin is one of the major factors in obtaining required water quality. The particle size and resin density of Purolite cation and anion component resins are specially optimized to afford excellent separation. Purolite A500MB is especially useful where conditions of operation are difficult, where the resin could be subjected to osmotic stress, or to high flow rates. The unique porous structure has been designed for use in the demineralization of aqueous solutions, including those containing appreciable quantities of high-molecular weight organic materials of the fulvic or humic acid type. Its resistance to fouling is superior to that of both gel resins and many other typical macroporous resins. It also has excellent resistance to osmotic and thermal shock. Before use Purolite A500MB must be regenerated to the hydroxide form prior to mixing with the cation component in the hydrogen form. Purolite A500MB has a very high affinity for mineral anions, organics and silica. This property is extremely useful for the production of treated water of very high quality. However this advantage results in the need for efficient regeneration, especially from the chloride form as supplied. Hence initially, a double regeneration is recommended. A high level of regeneration is also useful where high treated water quality is required, or where there are high levels of organics in the inlet water.

### Basic Features:

| | |
|---|---|
| Application | Demineralization - Mixed Bed |
| 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.) | $Cl^-$ | 1.15 eq/l |
| Total Capacity (min.) | $Cl^-$ | 25.11 kGr/ft$^3$ |
| Moisture Retention | $Cl^-$ | 53-58 % |
| Mean Size Typical | | 0.65-0.90 mm |
| Uniformity Coefficient (max.) | | 1.70 |
| Reversible Swelling (max.) | $Cl^- \rightarrow OH^-$ | 15 % |
| Specific Gravity | | 1.08 g/ml |
| Shipping Weight (approx.) | | 670-700 g/l |
| Temp Limit | $OH^-$ | 65 °C |
| Temp Limit | $OH^-$ | 150 °F |

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| | | |
|---|---|---|
| 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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