PUROLITE
ION EXCHANGE RESINS

Product Data Sheet

PUROLITE® A555

Strong Base Anion Macroporous

Macroporous Type III Strong Base Anion Exchange Re

Purolite A555 is a Type III macroporous strong base anion resin with a specialized functional group consisting of polyvinylbenzyl-dimethypropanolamine. Its specialized structure results in excellent resistance to osmotic and thermal shock, while providing high operating capacity on most naturally-encountered feedwaters. It can be favorably compared with many Type-II macroporous resins in this respect. It also has high reversible sorptive capacity for silica, plus complex organic materials, both ionized and non-ionized, which occur in many surface water supplies. Its particular advantages over Type-II resins are its silica removal performance equal to that of a type -I resin, and its superior thermal stability. It shows low thermal degradation for temperatures up to 55°C., and it can be used successfully where an acrylic Type-I resin would fail. Also it has a superior regenerability to a conventional Type-I exchanger. It may be used with excellent results under various ion-exchange column conditions, but is particularly suitable for operating in higher than average ambient temperatures where Type-II resins are barely suitable. High flowrate deionizing, continuous ion-exchange treatment processes, and especially counterflow regeneration systems, which result in more efficient use of regenerant, may be used. In fact it is the only anion exchange resin type that does not suffer from any significant drawback in most water applications. Like most other Purolite resins Purolite A555 is available in a range of particle size distributions tailored for specific applications. Please refer to the resin characteristics summary brochure for the names, applications, and specifications.

Basic Features:

Application	Water Treatment
Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Type 3 Quaternary Ammonium
Ionic form as shipped	Cl^-

Typical Physical and Chemical Characteristics:

Total Capacity (min.)	Cl^-	1.10 eq/l
Total Capacity (min.)	Cl^-	24.02 kGr/ft^3
Moisture Retention	Cl^-	48-54 %
Mean Size Typical		0.60-0.85 mm
Uniformity Coefficient (max.)		1.70
Reversible Swelling (max.)	$Cl^- \rightarrow OH^-$	15 %
Specific Gravity		1.08 g/ml
Shipping Weight (approx.)		680-715 g/l
Temp Limit	OH^-	55 °C
Temp Limit	OH^-	131 °F
Temp Limit	Cl^-	100 °C

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Temp Limit	Cl^-	212 °F
pH Limits		0-14 (Stability)
pH Limits	H^+	0-11 (Operating)

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