

Macroporous Intermediate Base Anion Exchange Resin

Purolite A105 is a macroporous poly(vinylbenzyl) tertiary amine type exchange resin of relatively high moisture content. Its excellent mechanical, osmotic, and chemical stability, combined with the capability of very fast rates of ion exchange, makes it particularly suitable for use in continuous processes (CL size grade), and it shows a very creditable capacity for the removal of high molecular weight organic materials from water during the demineralization run. These organics are readily eluted from the resin on regeneration, and no organic fouling of Purolite A105 is observable until quite high ratios of organic matter to FMA (free mineral acidity) are approached in the influent water. In fact provided the organic matter expressed in ppm KMnO4 does not exceed 30% of the total anions expressed in ppm CaCO3, resin performance is generally unaffected. Purolite A105 offers excellent protection from organic fouling for any downstream strong base resin. The particle size range can also be specially designed to suit continuous process operation, or for operation at higher than average flow rates (up to 80 bed volumes per hour).

Basic Features:

Application	Demineralization
Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Tertiary Amine
Ionic form as shipped	Free Base

Typical Physical and Chemical Characteristics:

Total Capacity (min.)	Free Base	1.10 eq/l
Total Capacity (min.)	Free Base	24.02 kGr/ft ³
Moisture Retention	Cl ⁻	58-65 %
SBC		10-20 %
Mean Size Typical		0.60-0.85 mm
Uniformity Coefficient (max.)		1.70
Reversible Swelling (max.)	FB → Cl ⁻	22 %
Specific Gravity		1.02 g/ml
Shipping Weight (approx.)		645-675 g/l
Shipping Weight (approx.)		40.3-42.2 lbs/ft ³
Temp Limit	OH ⁻	60 °C
Temp Limit	OH ⁻	140 °F
Temp Limit	Cl ⁻	100 °C

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Temp Limit	Cl ⁻	212 °F
pH Limits		0-14 (Stability)
pH Limits	H ⁺	0-9 (Operating)

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