

Macroporous Weak Base Anion Exchange Resin

Purolite A103S is a macroporous polystyrenic weak base anion resin having tertiary amine functionality especially prepared for sugar and sweetener applications. Purolite A103S is designed to exhibit high operating capacity. Because of its special porosity characteristics Purolite A103S shows excellent properties for removal of naturally occurring organic species along with superior elution efficiency of the organics during regeneration. Purolite A103S also shows excellent resistance to osmotic shock as well as being physically resistant to mechanical breakage. Regeneration with caustic soda requires only 125% of the stoichiometric equivalent when related to the ionic loading on the resin at the exhaustion point. The rinse characteristics are good and minimum volumes of decationized water are required to rinse down to a conductivity of 50 µS/cm.

Basic Features:

Application	Demineralization / Decolorization of Glucose Solutions
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	1.60 eq/l
Total Capacity (min.)	Free Base	34.93 kGr/ft ³
Moisture Retention	Cl ⁻	48-55 %
SBC		12-20 %
Mean Size Typical		0.65-0.90 mm
Uniformity Coefficient (max.)		1.70
Reversible Swelling (max.)	FB → Cl ⁻	25 %
Specific Gravity		1.04 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
Temp Limit	Cl ⁻	212 °F

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pH Limits		0-14 (Stability)
pH Limits	H ⁺	0-9 (Operating)

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