C120E Styrene Series Gel Strong Acid Cation Exchange Resin

1. Description

C120E is a high capacity premium grade bead form conventional gel polystyrene sulphonate cation exchange resin designed for use in industrial or household water conditioning equipment, Its acidity is similar to some inorganic acids,such as sulfuric acid [H_2SO_4] and hydrochloric acid[HCl].It can be used as ion exchanger in alkaline,neutral and acidic mediums.This product has speedy exchange ability and good physical strength.

2.Typical Physical and Chemical Properties:

Items		Specification
Polymer Matrix Structure		Crosslinked Polystyrene Divinylbenzene
Physical Form and Appearance		Brown yellow to buown grey color beads
Functional Groups		$R\text{-}SO_3^-$
Ionic Form ,as shipped		Na^+
Total Capacity, Na^+ form, wet, volumetric		≥1.5eq/l min
Moisture Retention, Na^+ form		54-60%
Particle Size Range		0.3mm-1.2mm
<300 μm (max.)		1%
Uniformity Coefficient (max.)		1.7
effective size		0.4-0.7mm
Reversible Swelling	$Na^+ \rightarrow H^+$ (max.)	10%
	$Ca^{2+} \rightarrow Na^+$(max.)	5%
Shipping Weight (approx.)		770 -810g/l
Specific Gravity, moist Na^+ Form		1.22
Temperature Limit		120°C (250 °F)
pH Range, Stability		0 - 14

3.Suggested Operating Condition

Maximum Temperature	Na^+ Form	120°C (248°F) max.
	H^+ Form	100°C (212°F) max.
Backwash Rate		25 to 50% Bed Expansion
Regenerant Concentration	Hydrogen Cycle	3% HCl or 2 to 3% H_2SO_4
	Sodium Cycle	6% to 8% NaCl or 3% NaOH
Regenerant dosage	HC1 or H_2SO_4	HC1 or H_2SO_4 volume:resin volume =3:1
	NaCl	NaCl volume:resin volume =2:1
	NaOH	NaOH volume:resin volume =3:1
Regenerant Flow Rate		2 to 4 BV/h
Regenerant contact Time		At least 40 minutes
Service Flow Rate		10-25m/h

4.Applications

It is used in hard water softening,pure water manufacturing, hydro-metallurgy, rare elements separation, aminophenol extracting it is widely used in water treatment, sugar manufacturing, pharmacy, monosodium glutamate, hydro-metallurgy industries and so on.