

001×7 Styrene Series Gel Strong Acid Cation Exchange Resin

1. Description

001×7 is a high purity premium grade ,high capacity, gelular, sulfonated, polystyrene cation resin supplied in the sodium or hydrogen form as moist, tough, uniform, spherical beads. 001×7 is intended for use in all water softening, dealkalization, deionization and chemical processing applications..

2. Typical Physical and Chemical Properties:

Items	Specification
Polymer Matrix Structure	Crosslinked Polystyrene Divinylbenzene
Physical Form and Appearance	Brown yellow to brown color beads
Functional Groups	R-SO ₃ ⁻
Ionic Form ,as shipped	Na ⁺
Total Capacity, Na ⁺ form, dry,quality	≥4.5mmol/g
Total Capacity, Na ⁺ form, wet, volumetric	≥1.9mmol/ml
Moisture Retention, Na ⁺ form	≥45-50%
Particle Size Range 0.315-1.25mm	≥95%
Uniformity coefficient	≤1.6
Specific Gravity, moist Na ⁺ Form	1.25-1.28
Shipping Weight (approx.)	0.80-0.85
Strength (sphericity after attrition)	≥95%
Whole beads	≥95%
Effective size	0.4-0.8mm
Free water %	0-2.0
Reversible Swelling	Na ⁺ → H ⁺ (max.) 8-10%

3.Suggested Operating Condition

Item	Reference value
pH Range, Stability	0 - 14
Maximum Temperature	Na ⁺ Form 120°C (248°F) max.

	H ⁺ Form	100°C (212°F) max.
Service Flow Rate m/h		15-30
Regenerant Concentration		HCl: 4-5%; NaOH: 4-5%; NaCl 8-10%

4.Applications

It is used in water softening applications ,preparation of pure water,hydrometallurgical ,rare elements separation.