



# EPOCHEMMIE CO., LTD

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## DATA SHEET

**Commodity:** Gel Strong Acid Cation Exchange Resin **Type:** C003UN

For use in water softening applications

### Application:

C003UN resin 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. C003UN is intended for use in all water softening, dealkalization, deionization and chemical processing applications.

### Product Description

Typical physical & Chemical characteristics

Polymer Matrix Structure	Styrene Crosslinked with DVB
Physical Form and Appearance	Clear spherical beads
Whole Bead Count	95% min.
Functional Groups	R-SO <sub>3</sub> <sup>-</sup>
Ionic Form ,as shipped	Na <sup>+</sup>
Total Exchange Capacity, Na <sup>+</sup> form, wet, volumetric	2.0 eq/l min.
Moisture Retention, H <sup>+</sup> form	43-48%
Particle Size Range	0.50mm-0.71 mm≥95%
Uniform Coefficient	1.15
Swelling H <sup>+</sup> → Na <sup>+</sup>	-10% max.
Ca <sup>2+</sup> → Na <sup>+</sup>	5% max.
Shipping Weight (approx.	0.78-0.88 g/ml
Specific Gravity, moist H <sup>+</sup> Form	1.25-1.30 g/ml
PH Range, Stability	0 – 14

### Suggested Operating Condition

Maximum Temperature	
Na <sup>+</sup> Form	150°C (300°F) max.
H <sup>+</sup> Form	100°C (212°F) max.
Minimum Bed Depth	0.6m(24inches)
Backwash Rat	25 to 50% Bed Expansion
Regenerant Concentration	
Hydrogen Cycle	6% HCl or 4 to 8% H <sub>2</sub> SO <sub>4</sub>
Sodium Cycle	4% to 6% NaCl
Regenerant Flow Rate	4 to 12 BV/h (0.5 to 1.5 gpm/cu.ft.)
Regenerant Contact Time	At least 30 minutes
Regenerant Level	112 -300g/L (4 to 10 pounds/ cu.ft.)
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	10 to 15 gallons/cu.ft.
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	35 to 60 gallons/cu.ft.
Service Flow Rate	10-25m/h (2 to 10 gpm/cu.ft.)