



# EPOCHEMMIE CO., LTD

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## DATA SHEET

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**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-0.71mm≥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 1.5gpm/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.)