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DATA SHEET

Commodity: Macroporous Strong Acid Cation Exchange Resin **Type:** C100

For use in water softening applications

Applications: C100 is a premium grade, high cross-linked, macroporous strong acid cation exchange resin based on sulfonated polystyrene cross-linked with DVB, The higher DVB content together with its macroporous structure gives C100 increase resistance to thermal, chemical and physical shocks and enhances overall stability.

C100 is intended for use in water softening, dealkalization, deionization and chemical processing applications. It is ideally suited for use in severe operating conditions, especially where standard grade resin are known to fail due to thermal, osmotic or oxidative attack

Product Description:

Typical physical & Chemical characteristics

Polymer Matrix Structure	Styrene Crosslinked with DVB
Physical Form and Appearance	Macroporous spherical beads
Whole Bead Count	95% min.
Functional Groups	R-SO ₃ ⁻
Ionic Form, as shipped	Na
Total Exchange Capacity, Na ⁺ form, wet, volumetric	1.75 eq/l min.
Moisture Retention, Na ⁺ form	45-55%
Particle Size Range	+1.2mm 5% max, -0.3mm 1% max
Swelling Na ⁺ → H ⁺	5% max.
Shipping Weight (approx.)	760-830 g/l
Specific Gravity, moist Na ⁺ Form	1.25
pH Range, Stability	0 - 14

Suggested Operating Condition

Maximum Temperature	
Na ⁺ Form	150°C (300°F) max.
H ⁺ Form	120°C (248°F) max.
Minimum Bed Depth	0.6m(24inches)
Backwash Rate	25 to 50% Bed Expansion
Regenerant Concentration	
Hydrogen Cycle	6% HCl or 4 to 8% H ₂ SO ₄
Sodium Cycle	10% to 15% 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.)