

POLYSTYRENIC GEL 8% CROSSLINKED POTASSIUM FORM

ResinTech CG8-K is an amber-colored 8% cross-linked gel strong acid cation resin in the potassium form. It has a capacity and other characteristics similar to other products in the CG8 family. CG8-K can be used interchangeably with sodium form CG8. It is intended for use in water softening and other neutral salt cation exchange applications where the release of sodium ions is undesirable.

APPLICATIONS

- Softening Industrial
- Sodium Removal

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Gel
Ionic Form	Potassium
Functional Group	Sulfonic Acid
Physical Form	Spherical Beads
Particle Size	16 to 45 US Mesh (354 - 1190 μm)
% < 50 mesh (300µm)	< 1%
Minimum Sphericity	93%
Uniformity Coefficient	1.4
Reversible Swelling	K to Na 3% to 5%
Temp Limit	280°F (138°C)
Capacity (meq/mL)	2.0
Moisture Retention	42% to 49%
Shipping Weight	49 - 51 lbs/ft ³ (785 - 817 g/L)
Color	Amber
Regenerability	Yes

PACKAGING OPTIONS

- 1 ft³ bags
- 1 ft³ boxes
- 1 ft³ drums
- 7 ft³ drums
- 42 ft³ supersacks



Revision 1.1 ResinTech, Inc.®



POLYSTYRENIC GEL 8% CROSSLINKED POTASSIUM FORM





POTASSIUM FORM SOFTENING

CG8-K is supplied in the potassium rather than the sodium form. Potassium form resins are regenerated with potassium chloride rather than sodium chloride. CG8-K produces softened water with reduced sodium content. Except for the use of a different salt, the capacity and other operating characteristics are virtually identical to sodium form softening.

SODIUM REMOVAL

Potassium form resins such as CG8-K have substantial capacity to remove sodium as well as hardness. The resin prefers hardness over sodium so it is possible to dump sodium if the resin is operated past sodium breakthrough.

Revision 1.1 ResinTech, Inc.®



Capacity and leakage data are based on the following: 2:1 Ca:Mg ratio, 500 ppm TDS as $CaCO_3$, 0.2% hardness in the salt and 10% brine concentration applied co-currently through the resin over 30 minutes. No engineering downgrade has been applied.

SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
Sodium form	280°F
Minimum bed depth	24 inches
Backwash expansion	25 to 50 percent
Maximum pressure loss	25 psi
Operating pH range	0 to 14 SU
Regenerant Concentration	
Salt cycle	10 to 15 percent KCl
Regenerant level	4 to 15 lbs./cu.ft.
Regenerant flow rate.	0.5 to 1.5 gpm/cu.ft.
Regenerant contact time	>20 minutes
Displacement flow rate	Same as dilution water
Displacement volume	10 to 15 gallons/cu.ft.
Rinse flow rate	Same as service flow
Rinse volume	35 to 60 gallons/cu.ft.
Service flow rate	1 to 10 gpm/cu.ft.

Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums. For operation outside these guidelines, contact ResinTech Technical Support

