

# PRODUCT SPECIFICATION SHEET

## MAGNA CG8-H-UPS

STRONG ACID CATION

UNIFORM PARTICLE SIZE  
POLYSTYRENIC GEL  
8% CROSSLINKED  
HYDROGEN FORM

ResinTech CG8-H-UPS is an amber-colored uniform particle size hydrogen form 8% cross-linked gel strong acid cation resin. The uniform beads and somewhat smaller harmonic mean size yields minimal pressure loss and better regeneration efficiency compared to Gaussian-sized resins. It is intended for use in all industrial applications that require a hydrogen form cation resin and is recommended for countercurrently regenerated systems such as packed beds.

### APPLICATIONS

- Demineralization
- Packed Beds
- Cation Component in Mixed Beds

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
<b>Polymer Matrix</b>	Styrenic Gel
<b>Ionic Form</b>	Hydrogen
<b>Functional Group</b>	Sulfonic Acid
<b>Physical Form</b>	Spherical Beads
<b>Particle Size</b>	20 to 40 US Mesh (400 - 841 $\mu$ m)
<b>% &lt; 50 mesh (300<math>\mu</math>m)</b>	< 0.5% minus 50
<b>Minimum Sphericity</b>	95%
<b>Uniformity Coefficient</b>	1.25
<b>Reversible Swelling</b>	H to Na -5% to -8%
<b>Temp Limit</b>	265°F (129°C)
<b>Capacity (meq/mL)</b>	2.0
<b>Moisture Retention</b>	42% to 49%
<b>Shipping Weight</b>	50 - 52 lbs/ft <sup>3</sup> (801 - 833 g/L)
<b>Color</b>	Amber
<b>Regenerability</b>	Yes
<b>Uniform Particle Size</b>	Yes

### PACKAGING OPTIONS

- 1 ft<sup>3</sup> bags
- 1 ft<sup>3</sup> boxes
- 1 ft<sup>3</sup> drums
- 7 ft<sup>3</sup> drums
- 42 ft<sup>3</sup> supersacks

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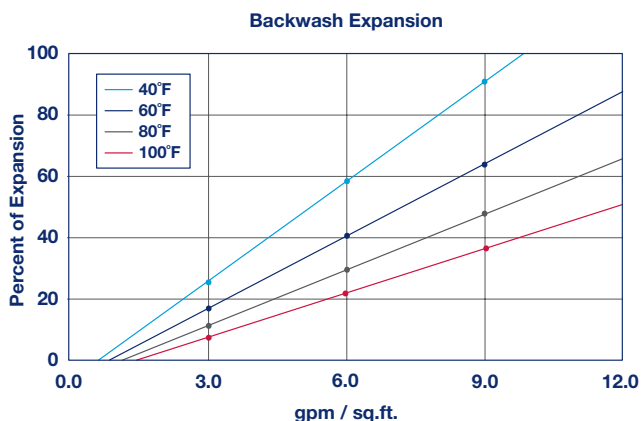
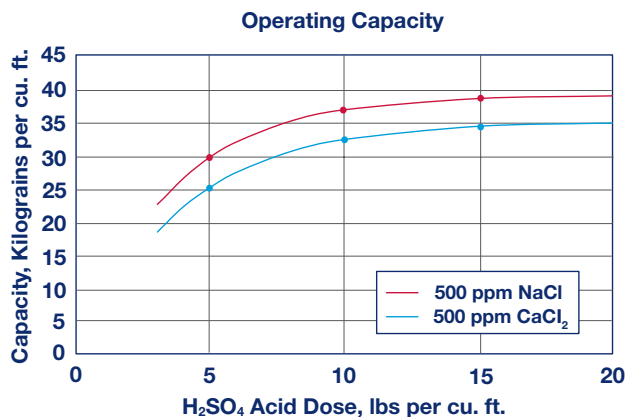
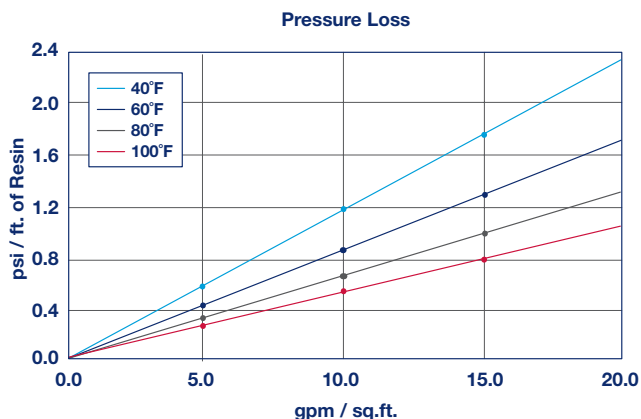


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Capacity based on 500 ppm of stated salt (as CaCO<sub>3</sub>) with 0% alkalinity, 36 in. bed depth, flow rate of 2 to 4 gpm per cu. ft. and >30 min. chemical injection time. Sulfuric acid concentration must be stepwise when calcium concentration exceeds 20% of total cations. No engineering downgrade has been applied.

### SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
Hydrogen form	265°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	
Hydrogen cycle	5 to 10 percent HCl
Hydrogen cycle	1 to 8 percent H <sub>2</sub> SO <sub>4</sub>
Salt cycle	10 to 15 percent NaCl
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

### DEMINEERALIZATION

CG8-H-UPS can be used as the cation component in a variety of demineralization applications where a hydrogen form cation resin is coupled with a hydroxide form anion resin. Common configurations include separate beds, mixed beds and other more complicated arrangements. Regeneration is accomplished with stepwise sulfuric acid or with hydrochloric acid.

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