

## MAGNA CN8-H

STRONG ACID CATION

**NON-SOLVENT  
POLYSTYRENIC GEL  
8% CROSSLINKED  
HYDROGEN FORM**

ResinTech CN8-H is a non-solvent strong acid cation resin in the hydrogen form. It is dark-colored and made using 8% cross-linked gel. CN8-H is a workhorse cation resin optimized for industrial applications like demineralization that require good regeneration efficiency and oxidative stability or where a hydrogen form cation resin is required. It is also recommended for mixed beds when visual identification of the cation is required.

### APPLICATIONS

- Demineralization
- Cation Component in Mixed Beds
- High purity applications

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
<b>Polymer Matrix</b>	Styrenic Gel
<b>Ionic Form</b>	Hydrogen
<b>Fuctional Group</b>	Sulfonic Acid
<b>Physical Form</b>	Spherical Beads
<b>Particle Size</b>	16 to 50 US Mesh (297 - 1190 µm)
<b>% &lt; 50 mesh (300µm)</b>	< 1%
<b>Minimum Sphericity</b>	93%
<b>Uniformity Coefficient</b>	1.6
<b>Reversible Swelling</b>	H to Na -5% to -8%
<b>Temp Limit</b>	265°F (129°C)
<b>Capacity (meq/mL)</b>	1.8
<b>Moisture Retention</b>	47% to 56%
<b>Shipping Weight</b>	49 - 51 lbs/ft <sup>3</sup> (785 - 817 g/L)
<b>Color</b>	Black
<b>Regenerability</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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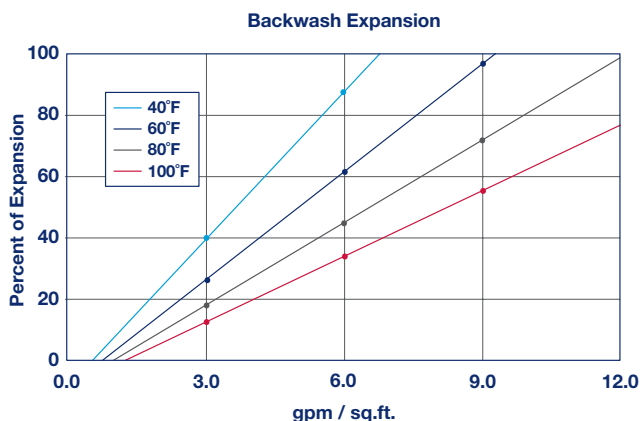
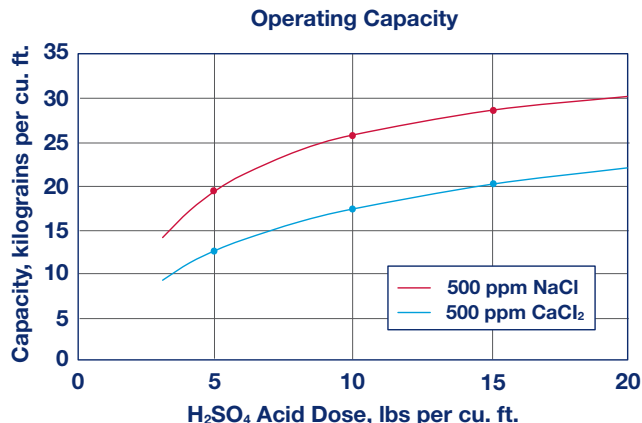
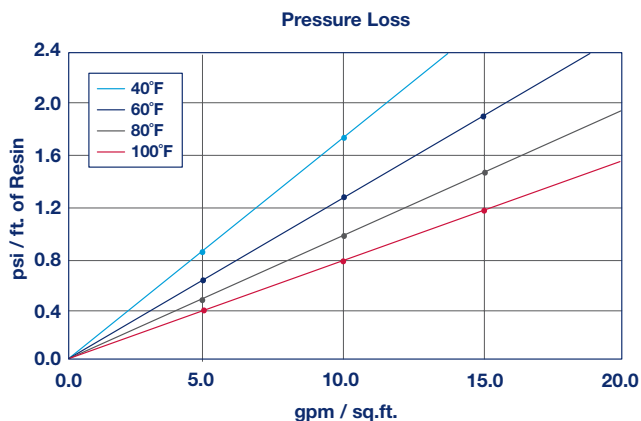


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Capacity based on 500 ppm of stated salt (as CaCO<sub>3</sub>) with 0% alkalinity, 36 in. bed depth, flow rate of 2 to 4 gpm per cu. ft. and >30 min. chemical injection time. Sulfuric acid concentration must be stepwise when calcium concentration exceeds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

### SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	265°F
Sodium 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.

### DEMINEALIZATION

ResinTech CN8-H can be used as the cation component in separate bed and mixed bed demineralization applications where a hydrogen form cation resin is coupled with a hydroxide form anion resin. Regeneration is accomplished with stepwise sulfuric acid or with hydrochloric acid.

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

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