

# PRODUCT SPECIFICATION SHEET

## MAGNA CG10-UPS

STRONG ACID CATION

UNIFORM PARTICLE SIZE  
POLYSTYRENIC GEL  
10% CROSSLINKED  
SODIUM FORM

ResinTech CG10-UPS is a uniform particle-sized, premium-grade, strong acid cation resin in sodium form. It is amber in color and made from a 10% cross-linked gel. The uniform beads and smaller harmonic mean size yield minimal pressure loss and better regeneration efficiency compared to resins with Gaussian size distribution. It is intended for use in all industrial applications and is recommended for countercurrently regenerated systems such as packed beds.

### APPLICATIONS

- Softening - Industrial
- Demineralization
- Packed Beds

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Gel
Ionic Form	Sodium
Functional Group	Sulfonic Acid
Physical Form	Spherical Beads
Particle Size	20 to 40 US Mesh (700 - 841 $\mu$ m)
% < 50 mesh (300 $\mu$ m)	< 0.5% minus 50
Minimum Sphericity	95%
Uniformity Coefficient	1.25
Reversible Swelling	Na to H 4% to 8%
Temp Limit	280°F (138°C)
Capacity (meq/mL)	2.2
Moisture Retention	39% to 45%
Shipping Weight	52 - 54 lbs/ft <sup>3</sup> (849 - 881 g/L)
Color	Amber
Regenerability	Yes
Uniform Particle Size	Yes

### PACKAGING OPTIONS

- 500 ml samples
- 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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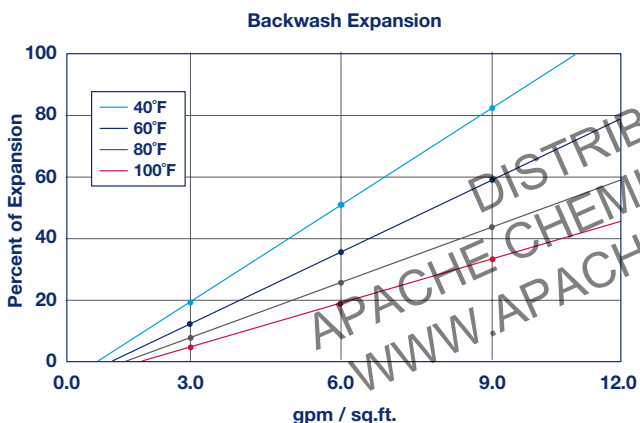
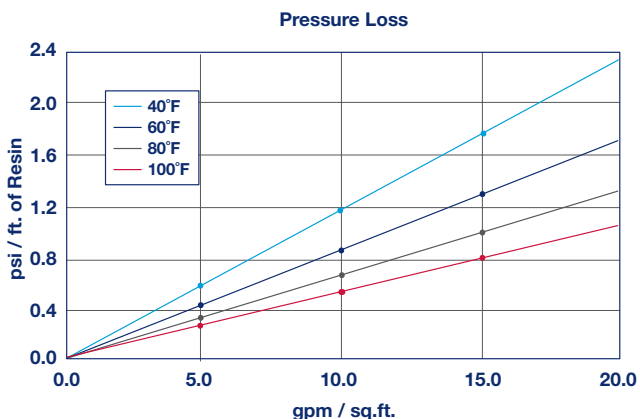


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### PACKED BEDS

CG10-UPS has a very narrow particle size range. The uniformity allows a slightly smaller bead size to be used which results in faster exchange of ions, more efficient regeneration and lower leakage. CG10-UPS is ideal for packed beds and other types of countercurrent ion exchangers where consistent operation is important cycle after cycle. Higher void space and minimal fine mesh beads provides low pressure loss and helps prevent channeling and other distribution problems. Packed beds typically have limited freeboard (only a few inches with the resin in the swollen form).

### SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	280°F
Sodium form	
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

### SOFTENING

CG10-UPS is a 10% crosslinked cation resin optimized for use in condensate softeners, high flow rate applications, and other applications where high physical and chemical durability are more important than high chemical efficiency. CG10-UPS is proven to have a long useful life, even in heavily chlorinated waters where other cation resins do not last.

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