

# CG8-UC1

**Strong acid cation resin, styrene/DVB 8% crosslinked gel, highly uniform particle size, sodium form**

ResinTech CG8-UC1 is a highly uniform particle size strong acid cation resin in the sodium form. It is amber in color and made from 8% crosslinked gel. The uniform beads and somewhat 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.



## FEATURES & BENEFITS

- Highly uniform particle size
- Low color throw
- Superior physical stability
- Complies with US FDA regulations

## APPLICATIONS

- Packed Beds
- Demineralization / DI
- Mixed Bed Components



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Meets NSF/ANSI/CAN 61  
Meets NSF/ANSI/CAN 372  
REACH Registered

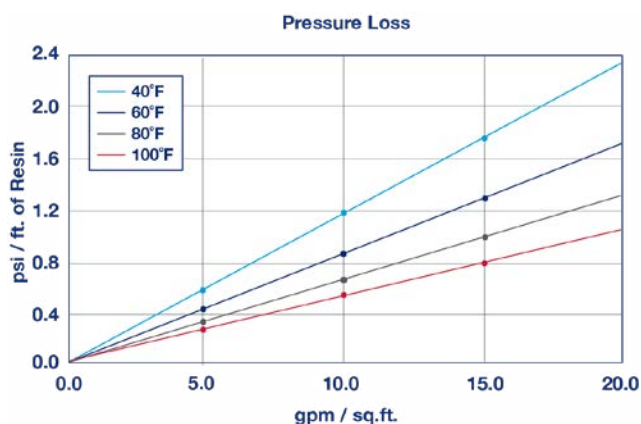
Kosher Certified  
Halal Certified

Conforms to §21CFR173.25 of the USFDA Food Additives Regulations

CG8-UC1

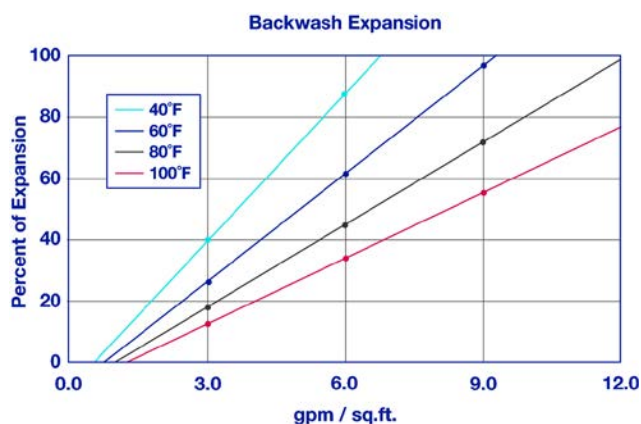
Polymer Matrix	Styrene/DVB	Reversible Swelling	5 to 9% (Na → H)
Polymer Type	Gel	Uniformity	UC1
Ionic Form (as shipped)	Sodium (Na <sup>+</sup> )	Uniformity Coefficient	1.10
Functional Group	Sulfonic Acid	Capacity (meq/mL)	2.00
Physical Form	Spherical Beads	Moisture Retention (%)	42 to 49
Particle Size US Mesh (µm)	20 (841) to 40 (400)	Shipping Weight	51 - 53 lbs/cu.ft. (817 - 849 g/L)
< 50 mesh (300 µm) %	< 0.5%	Color	Amber
Minimum Sphericity (%)	95	Regenerable	Regenerable

**PRESSURE LOSS**



The graph above shows the expected pressure loss of ResinTech CG8-UC1 per foot of bed depth as a function of flow rate at various temperatures.

**BACKWASH EXPANSION**



The graph above shows the expansion characteristics of ResinTech CG8-UC1 as a function of flow rate at various temperatures.

**SUGGESTED OPERATING CONDITIONS**

Maximum Temperature	280°F (138°C)	Operating pH Range	0 to 14
Minimum Bed Depth	24 in. (61.0 cm)	Flow Rate	
Maximum Pressure Loss	25 psi (172 kPa)	Working Service	1-10 gpm/cu.ft. (8-80 BV/h)
Backwash Expansion (%)	25 to 50		



**SOFTENING**

ResinTech **CG8-UC1** is an 8% crosslinked cation resin optimized for industrial softening applications. **CG8-UC1** has higher total capacity than standard crosslinked resins such as CGS and has higher operating capacity when relatively large brine doses are used during regeneration. **CG8-UC1** is suitable for hot water applications and for waters that contain modest levels of chlorine.

**PACKED BEDS**

ResinTech **CG8-UC1** 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. **CG8-UC1** 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 provide 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).

**DEMINERALIZATION**

See **CG8-H-UC1**.

**REGENERATION DETAILS**

Salt Cycle (NaCl)	10 to 15%	Displacement Flow Rate	Same as dilution water
Regenerant Level	4-15 lbs/cu.ft. (64.1-240.3 g/L)	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Regenerant Flow Rate	0.5-1.5 gpm/cu.ft. (4-12 BV/h)	Rinse Flow Rate	Same as service flow
Regenerant Contact Time	> 20 minutes	Rinse Volume	35-60 gals/cu.ft. (5-8 BV)

**PACKAGING**

**Standard**

1 cu.ft. Bag | 42 cu.ft. Supersack  
 5 cu.ft. Drum | 7 cu.ft. Drum

**Metric**

140L Drum | 200L Drum

**SAFETY DATA SHEETS (SDS)**

Safety Data Sheets (SDS) are available for all products on the ResinTech website. They contain important health and safety information that may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith. However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.

Safety Data Sheets (SDS) are available at [resintech.com](http://resintech.com)

