

CG10-H-UC1

Strong acid cation resin, styrene/DVB 10% crosslinked gel, highly uniform particle size, hydrogen form

ResinTech CG10-H-UC1 is an amber-colored highly uniform particle size hydrogen form 10% crosslinked gel strong acid cation resin. The uniform beads and somewhat smaller harmonic mean size yields minimal pressure loss and better regeneration efficiency compared to resins with Gaussian size distribution. It is intended for use in all industrial applications that require a hydrogen form cation resin and is recommended for counter-currently regenerated systems such as packed beds.



FEATURES & BENEFITS

- Highly uniform particle size
- 10% divinylbenzene
- Low color throw
- Superior physical stability

APPLICATIONS

- Packed Beds
- Demineralization / DI
- Condensate Polishing
- Ultrapure Water Production (UPW)
- Mixed Bed Components

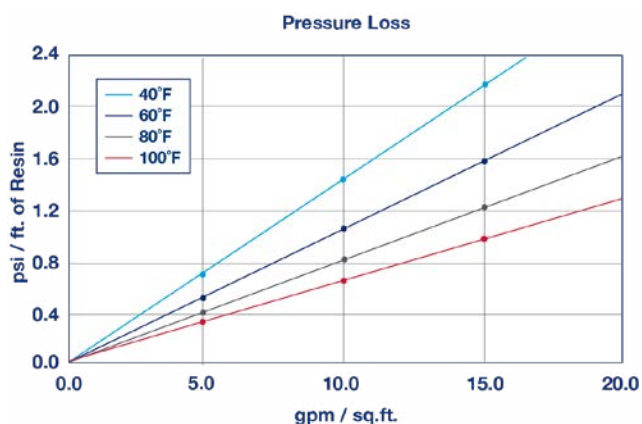


REACH Registered

CG10-H-UC1

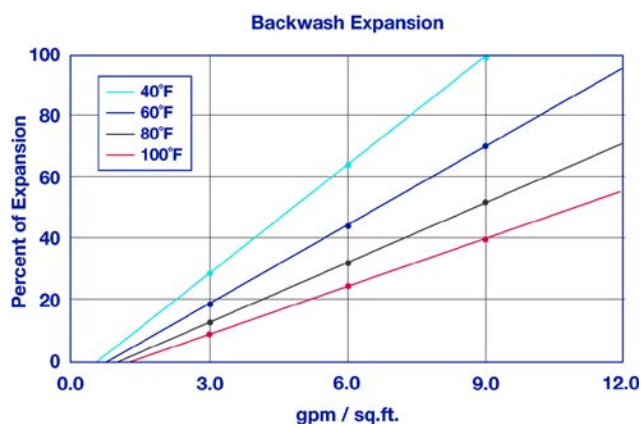
Polymer Matrix	Styrene/DVB	Reversible Swelling	5 to 9% (Na → H)
Polymer Type	Gel	Uniformity	UC1
Ionic Form (as shipped)	Hydrogen (H ⁺)	Uniformity Coefficient	1.10
Functional Group	Sulfonic Acid	Capacity (meq/mL)	2.00
Physical Form	Spherical Beads	Moisture Retention (%)	46 to 52
Particle Size US Mesh (µm)	20 (841) to 40 (400)	Shipping Weight	50 - 52 lbs/cu.ft. (801 - 833 g/L)
< 50 mesh (300 µm) %	< 0.5%	Color	Amber to Brown
Minimum Sphericity (%)	95	Regenerable	Regenerable

PRESSURE LOSS



The graph above shows the expected pressure loss of ResinTech CG10-H-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 CG10-H-UC1 as a function of flow rate at various temperatures.

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	265°F (129°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		



DEMINERALIZATION

ResinTech **CG10-H-UC1** can be used as the cation component in a variety of demineralization configurations where a hydrogen form cation resin is coupled with a hydroxide form anion resin. The high density of **CG10-H-UC1** provides ideal separation in polishing mixed beds. **CG10-H-UC1** has higher total capacity and lower chemical efficiency compared to **CG8-H-UC1**.

PACKED BEDS

ResinTech **CG10-H-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. **CG10-H-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 provides low pressure loss and helps prevents channeling and other distribution problems. Packed beds typically have limited freeboard (only a few inches with the resin in the swollen form).

REGENERATION DETAILS

Salt Cycle (NaCl)	10 to 15%	Regenerant Contact Time	> 20 minutes
Hydrogen Cycle (H2SO4)	1 to 8%	Displacement Flow Rate	Same as dilution water
Hydrogen Cycle (HCl)	5 to 10%	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Regenerant Level	4-15 lbs/cu.ft. (64.1-240.3 g/L)	Rinse Flow Rate	Same as service flow
Regenerant Flow Rate	0.5-1.5 gpm/cu.ft. (4-12 BV/h)	Rinse Volume	35-60 gals/cu.ft. (5-8 BV)

PACKAGING

Standard

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

Metric

25L Bag | 140L 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

