CG10-UC1

Grade: Standard

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

ResinTech CG10-UC1 is a highly uniform particle size, premium-grade, strong acid cation resin in the sodium form. It is amber in color and made from a 10% crosslinked 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.

FEATURES & BENEFITS

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

APPLICATIONS

- High Temperature Applications
- Condensate Polishing
- Softening

PHYSICAL PROPERTIES

Polymer Matrix	Styrene/DVB
Polymer Type	Gel
Ionic Form (as shipped)	Sodium (Na^+)
Functional Group	Sulfonic Acid
Physical Form	Spherical Beads
Uniformity Coefficient	1.10
Effective Particle Size	650 + 50 µm
< 50 mesh (300 µm) %	< 0.5%
Minimum Sphericity (%)	95
Reversible Swelling	4 to 8% (Na → H)
Capacity (meq/mL)	2.20
Moisture Retention (%)	39 to 45
Shipping Weight	52 - 54 lbs/cu.ft. (833 - 865 g/L)
Color	Amber to Brown
Regenerable	Regenerable

SUGGESTED OPERATING CONDITIONS

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

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

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

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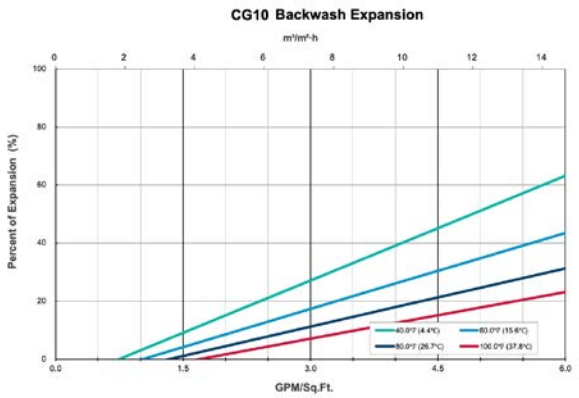
REGENERATION DETAILS

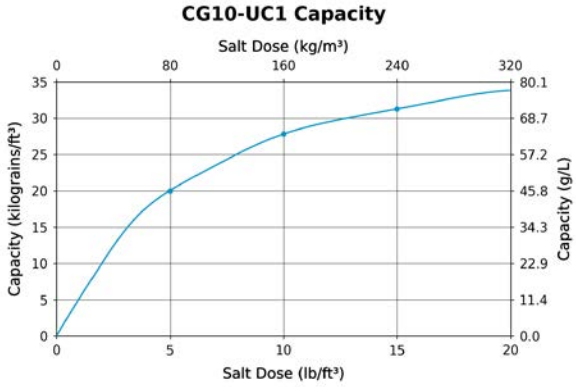
Salt Cycle (NaCl)	10 to 15%	Displacement Flow Rate	Same as dilution water
Regenerant Level	4-15 lbs/cu.ft. (64.1-240.3 g/L)	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Regenerant Flow Rate	0.5-1.5 gpm/cu.ft. (4-12 BV/h)	Rinse Flow Rate	Same as service flow
Regenerant Contact Time	> 20 minutes	Rinse Volume	Minimum of 30 gals/cu.ft. (4 BV)

BACKWASH EXPANSION



The graph above shows the expansion characteristics of ResinTech CG10-UC1 as a function of flow rate at various temperatures.

CAPACITY



Capacity and leakage data are based on the following: 2:1 Ca:Mg ratio, 500 ppm TDS as CaCO3, 0.2% hardness in the salt and 10% brine concentration applied co-currently through the resin over 30 minutes. No engineering downgrade has been applied.

SOFTENING

ResinTech **CG10-UC1** 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-UC1** is proven to have a long useful life, even in heavily chlorinated waters where other cation resins do not last.

PACKED BEDS

ResinTech **CG10-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-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).

DEMINERALIZATION

See ResinTech **CG10-H-UC1**.

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CERTIFICATIONS

Meets NSF/ANSI/CAN 61

REACH Registered

PACKAGING

Standard

1 cu.ft. Bag | 42 cu.ft. Supersack
1000L Supersack | 25L Bag

Metric

5 cu.ft. Drum | 7 cu.ft. Drum
140L Drum | 200L Drum

Shipping Weight

52 - 54 lbs/cu.ft. (833 - 865 g/L)

MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets (MSDS) 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

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