CG8-F

Grade: Standard

Strong acid cation resin, styrene/DVB 8% crosslinked gel, fine mesh, sodium form

ResinTech CG8-F is an amber-colored fine mesh strong acid cation resin in the sodium form made with an 8% crosslinked gel. It offers faster kinetics and improved regeneration efficiency compared to similar resins with larger beads. CG8-F is intended for industrial softening applications that have moderate levels of iron in the feedwater and for applications that challenge the kinetic limits of larger size resins.

FEATURES & BENEFITS

- Uniform fine particle size
- Residential softening
- Low color throw
- Superior physical stability
- Complies with US FDA regulations

APPLICATIONS

- Iron Removal
- 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	1.60
Particle Size	30-50 US mesh (297-595µm)
< 50 mesh (300 µm) %	< 30%
Minimum Sphericity (%)	93
Reversible Swelling	5 to 9% (Na → H)
Capacity (meq/mL)	2.00
Moisture Retention (%)	42 to 49
Shipping Weight	49 - 51 lbs/cu.ft. (785 - 817 g/L)
Color	Amber
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

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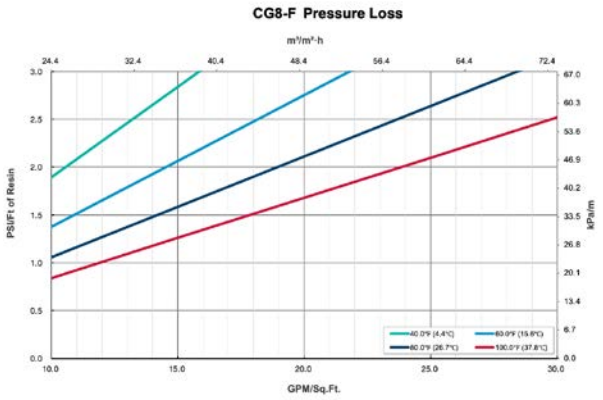
REGENERATION DETAILS

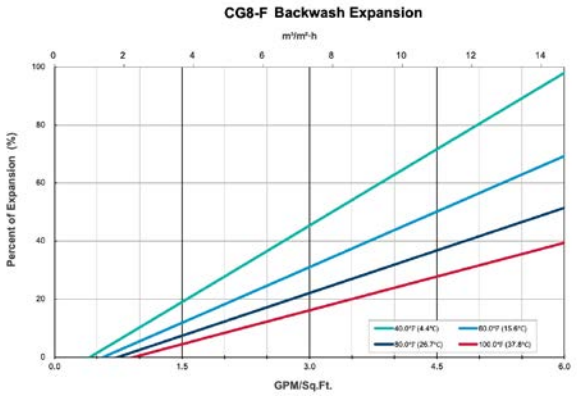
Salt Cycle (NaCl)	10 to 15%	Displacement Flow Rate	Same as dilution water
Regenerant Level	4-15 lbs/cu.ft. (64.1-240.3 g/L)	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Regenerant Flow Rate	0.5-1.5 gpm/cu.ft. (4-12 BV/h)	Rinse Flow Rate	Same as service flow
Regenerant Contact Time	> 20 minutes	Rinse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

PRESSURE LOSS



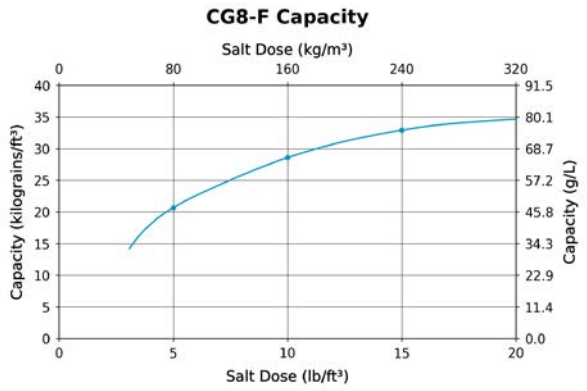
The graph above shows the expected pressure loss of ResinTech CG8-F per foot of bed depth as a function of flow rate at various temperatures.

BACKWASH EXPANSION



The graph above shows the expansion characteristics of ResinTech CG8-F 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.

IRON REMOVAL

ResinTech **CG8-F** has good capacity for iron removal. Soluble (ferrous) iron is removed by ion exchange, in much the same way as hardness ions are removed. Particulate (ferric) iron is removed by filtration. As a general rule of thumb, to protect against fouling, the iron content in the feed water should not be more than 1 mg/L Fe per each 17 mg/L of hardness. This ensures an adequate salt dose and regeneration frequency which helps to prevent fouling.

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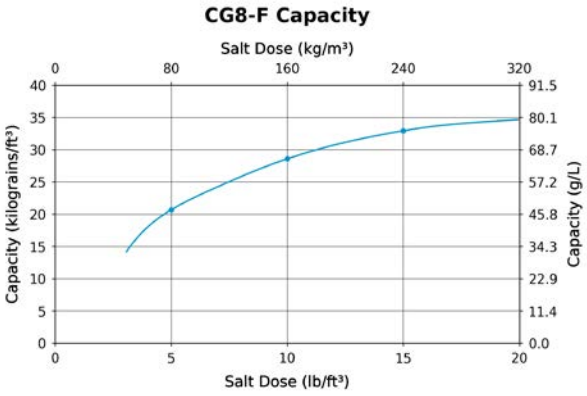
SOFTENING

ResinTech **CG8-F** is an 8% crosslinked cation resin optimized for industrial softening applications. **CG8-F** 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.



Capacity and leakage data are based on the following: 2:1 Ca:Mg ratio, 500 ppm TDS as $CaCO_3$, 0.2% hardness in the salt and 10% brine concentration applied cocurrently through the resin over 30 minutes. No engineering downgrade has been applied.

CERTIFICATIONS

Meets NSF/ANSI/CAN 44

Meets NSF/ANSI/CAN 61

Meets NSF/ANSI/CAN 372

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

49 - 51 lbs/cu.ft. (785 - 817 g/L)

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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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