CG10-H-CP

Grade: Condensate Polishing

Strong acid cation resin, styrene/DVB 10% crosslinked gel, condensate polishing grade, hydrogen form

ResinTech CG10-H-CP is a condensate polisher grade, 10% crosslinked strong acid cation gel resin in the hydrogen form. It offers high capacity and resistance to both thermal and chemical oxidation. A dark-colored, uniformed particle size resin, CG10-H-CP yields minimal pressure loss and perfect separation from "CP" grade anion resins. It is ideally suited for high flow rate, deep bed condensate polishing applications when paired with either SBMP1-OH-CP or SBG1-OH-CP.

FEATURES & BENEFITS

- Controlled particle size10% divinylbenzene
- Superior physical stability
- Low organic leachables

APPLICATIONS

- Amine Cycle Polishing
- Demineralization / DI
- Condensate Polishing
- Mixed Bed Components

PHYSICAL PROPERTIES

Polymer Matrix	Styrene/DVB
Polymer Type	Gel
Ionic Form (as shipped)	Hydrogen (H^+)
Functional Group	Sulfonic Acid
Physical Form	Spherical Beads
Uniformity Coefficient	1.60
Effective Particle Size	625 +100 um
Particle Size	16-35 US mesh (500-1190µm)
< 50 mesh (300 µm) %	< 0.5%
Minimum Sphericity (%)	95
Reversible Swelling	4 to 8% (Na → H)
Capacity (meq/mL)	2.00
Moisture Retention (%)	46 to 52
Shipping Weight	50 - 52 lbs/cu.ft. (801 - 833 g/L)
Color	Dark Brown to Black
Regenerable	Regenerable
% greater than 200 grams	90
Average, grams per bead	500

REACH COMPLIANCE

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

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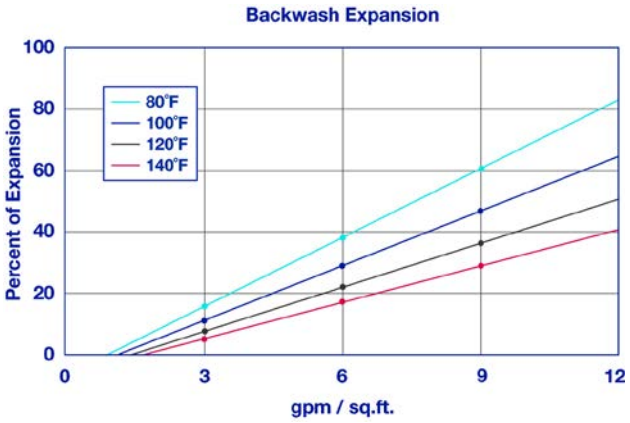
SUGGESTED OPERATING CONDITIONS

Maximum Temperature	265°F (129°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)

REGENERATION DETAILS

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

BACKWASH EXPANSION



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

CONDENSATE POLISHING

ResinTech **CG10-H-CP** is ideally suited for high pressure condensate polishing applications. High DVB crosslinking and high capacity help provide long service life when treating condensates that contain ammonia or other amines. **CG10-H-CP** has narrowly graded particle size and slightly larger bead size to provide low pressure loss and help improve separation from CP grade anion resins.

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AMINE CYCLE POLISHING

Condensate polishing resins such as ResinTech **CG10-H-CP** can be converted into the amine form before use, or special ordered in the amine form. Amine form resin is useful because this type of resin does not contain sodium and it does not remove the amine that is already present in the condensate. Amine form resins exchange ions in a similar fashion to those in the hydrogen form but without the release of hydrogen back into the condensate. Hydrogen form resin can be directly aminated by recycling an excess of amine through the resin until the reaction is complete. Resins in the neutral salt form cannot be directly aminated. An amine salt can be used or the resin can first be regenerated into the hydrogen form and then aminated directly.

MAXIMUM IMPURITIES

Metallic Impurities (Moist Basis)

Sodium (Na) ppm < 40

Iron (Fe) ppm < 50

Copper (Cu) ppm < 10

Aluminum (Al) ppm < 30

Calcium (Ca) ppm < 30

Magnesium (Mg) ppm < 30

Heavy metals (Pb) ppm < 10

Anionic Impurities

Post UV Chloride (Cl) < 100 ppb

Post UV Sulfate (SO4) < 100 ppb

Water Extractables (TOC) > 10 ppm

Crush Strength

Average grams per bead > 500

Percent greater than 200 grams > 95

Lot certification is available and is provided when specified in purchase agreement. This list of impurities complies with EPRI Reference Document 1022558, Procurement Specifications for Nuclear Power Plants.

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CERTIFICATIONS

REACH Registered

PACKAGING

Standard

7 cu.ft. Drum | 42 cu.ft. Supersack
200L Drum | 1000L Supersack

Metric

1 cu.ft. Bag | 5 cu.ft. Drum
25L Bag | 140L Drum

Shipping Weight

50 - 52 lbs/cu.ft. (801 - 833 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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