# **PRODUCT SPECIFICATION SHEET**



BLACK POLYSTYRENIC GEL 10% CROSSLINKED HYDROGEN FORM

ResinTech CG10-H-BL is a dark-colored hydrogen form 10% cross-linked gel strong acid cation resin. It has the same high capacity and resistance to both thermal and chemical oxidation as other products in the CG10 family. CG10-H-BL is intended for industrial applications where high capacity and durability are desired in a hydrogen form cation resin. It is recommended for mixed beds where its dark color and increased density are helpful.

### **APPLICATIONS**

- Demineralization
- Cation Component in Mixed Beds

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Gel
Ionic Form	Hydrogen
Functional Group	Sulfonic Acid
Physical Form	Spherical Beads
Particle Size	16 to 50 US Mesh (297 - 1190 μm)
% < 50 mesh (300μm)	< 1%
Minimum Sphericity	90%
Uniformity Coefficient	1.6
Reversible Swelling	H to Na -4% to -7%
Temp Limit	265°F (129°C)
Capacity (meq/mL)	2.0
Moisture Retention	46% to 52%
Shipping Weight	51 - 53 lbs/ft <sup>3</sup> (817 - 849 g/L)
Color	Dark Brown to Black
Regenerability	Yes

## **PACKAGING OPTIONS**

- 1 ft³ bags
- 1 ft³ boxes
- 1 ft<sup>3</sup> drums
- 7 ft<sup>3</sup> drums
- 42 ft³ supersacks

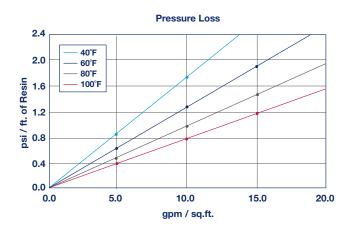
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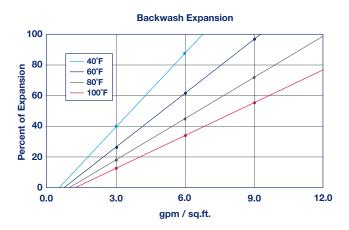


# CG10-H-BL

# STRONG ACID CATION

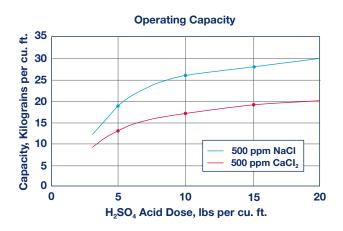
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#### **DEMINERALIZATION**

CG10-H-BL 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-BL provides ideal separation in polishing mixed beds. CG10-H-BL has higher total capacity and lower chemical efficiency compared to CG8-H.



Capacity based on 500 ppm of stated salt (as CaCO<sub>3</sub>) with 0% alkalinity, 36 in. bed depth, flow rate of 2 to 4 gpm per cu. ft. and >30 min. chemical injection time. Sulfuric acid concentration must be stepwise when calcium concentration exceeds 20% of total cations. No engineering downgrade has been applied.

## SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature 265°F Hydrogen form Minimum bed depth 24 inches Backwash expansion 25 to 50 percent Maximum pressure loss 25 psi 0 to 14 SU Operating pH range Regenerant Concentration Hydrogen cycle 5 to 10 percent HCI Hydrogen cycle 1 to 8 percent H<sub>2</sub>SO<sub>4</sub> Salt cycle 10 to 15 percent NaCl Regenerant level 4 to 15 lbs./cu.ft. Regenerant flow rate. 0.5 to 1.5 gpm/cu.ft. Regenerant contact time >20 minutes Displacement flow rate Same as dilution water Displacement volume 10 to 15 gallons/cu.ft. Rinse flow rate Same as service flow Rinse volume 35 to 60 gallons/cu.ft. Service flow rate 1 to 10 gpm/cu.ft.

Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.

For operation outside these guidelines, contact ResinTech Technical Support

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