GC-200

Weak Acid Cation Exchange Resin

Product Description & Applications

G-ion GC-200 is gel type poly-acrylic weak acid cation resin. It can be supplied in the hydrogen (H) form or sodium (Na) as spherical beads.se of its high capacity and good physical stability.

G-ion GC-200 in H cycle is used for dealkalization, deionization and chemical processing applications.

Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Acrylic-Divinybenzene
Functional Group	R-(COOH)-
Ionic Form, as shipped	Na+
Physical Form And Appearance	Clear Spherical Beads
Puerility	95% min.
Screen Size Range-U.S. Standard Screen	16-50 mesh, wet
Particle Size Range	0.315-1.25mm
Uniformity Coefficient	1.6 max.
Water Retention, Na+ form	43-48%
Swelling Na^+ $H^+ \rightarrow Ca^{2+} \rightarrow Na^+$	10% max. 5% max.
Shipping Weight, Na+ form	780-880 g/l (51 lbs/cu.ft, approx.)
Total Exchange Capacity, Na+ form	2.0 eq/l min.
pH Range	4-14

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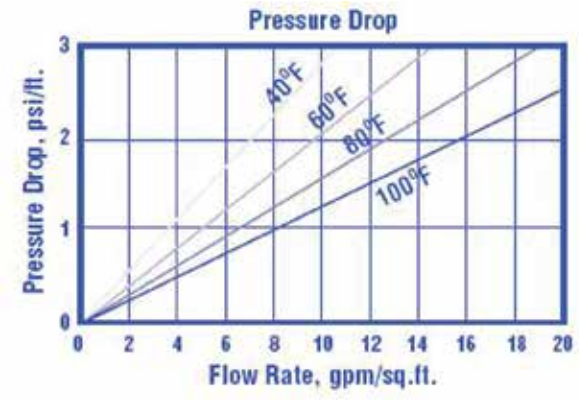
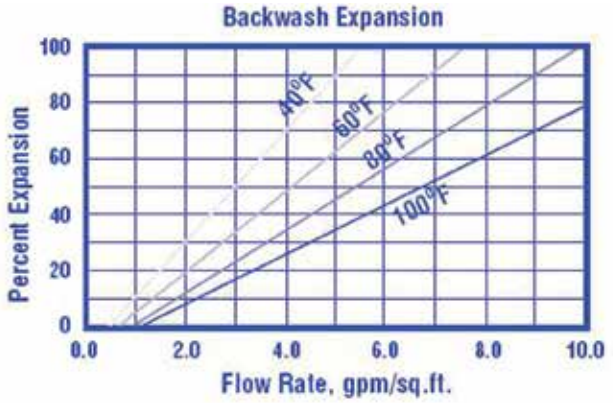
Suggested operating conditions

Maximum Temperature	Na^+ form H^+ form	120ºC (248ºF) max. 100ºC (212ºF) max.
Minimum Bed Depth		0.6 m (24 inches)
Backwash Rate		25-50% Bed Expansion
Regeneration	Sodium Cycle Hydrogen Cycle Flow Rate Contact Time	8-20% NaCl 10% HCl, 2-8% H2SO4 2 to 7 BV/h (0.25 to 0.90 gpm/cu.ft) At least 30 Minutes
Displacement Rinse Rate		Same as Regenerant Flow Rate
Displacement Rinse Volume		10 -15 gallons/cu.ft
Fast Rinse Rate		Same as Service Flow Rate
Fast Rinse Volume		35-60 gallons/cu.ft
Service Flow Rate		4-8 BV/h (1.0-5.0 gpm/cu.ft)

Hydraulic properties





Pressure Drop:

The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various Temperatures.

Backwash:

After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure G-ion GC-200 in the sodium form.