

GA-102

Gel Strong Base Anion Exchange Resin

Product Description & Applications

G-ion GA-102 is a Type I, gel strong-base anion exchange resin, high capacity, supplied as spherical beads in the chloride form has high capacity, shock resistant with high physical stability.

G-ion GA-102 is intended for use in all type of deionization systems and chemical processing applications, especially suited for use in mixed bed and layered bed demineralizer systems, including silica removal.

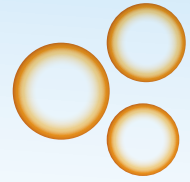


Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Polystyrene crosslinked with DVB
Functional Group	R-N(CH ₃) ₃ ⁺
Ionic Form, as shipped	Chloride (Cl ⁻)
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 ⁺ → Ca ²⁺ → 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	0-14

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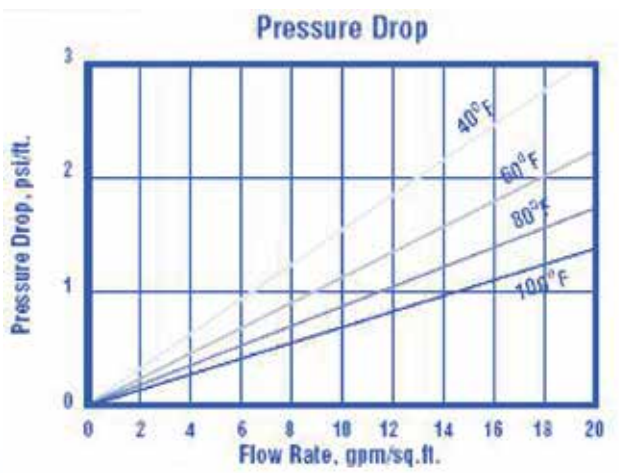
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Suggested operating conditions

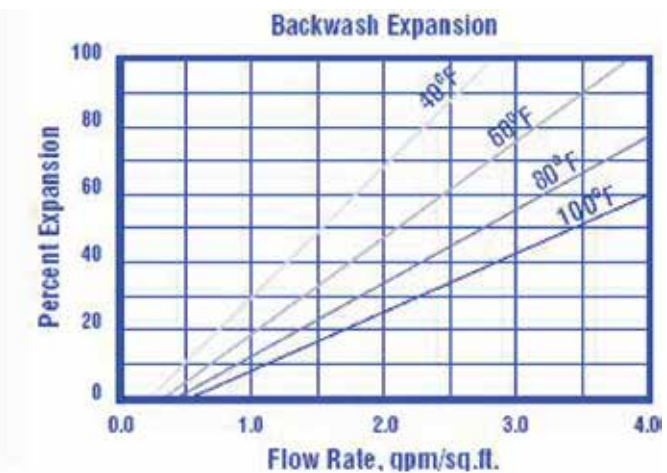
Maximum Temperature	Na ⁺ form H ⁺ form	120°C (248°F) max. 100°C (212°F) max.
Minimum Bed Depth		0.6 m (24 inches)
Backwash Rate		25-50% Bed Expansion
Regeneration	Sodium Cycle Hydrogen Cycle Flow Rate Contact Time	8-20% NaCl 10% HCl, 2-8% H ₂ SO ₄ 2 to 7 BV/h (0.25 to 0.90 gpm/cu.ft) At least 30 Minutes
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 GA-102 in the sodium form.