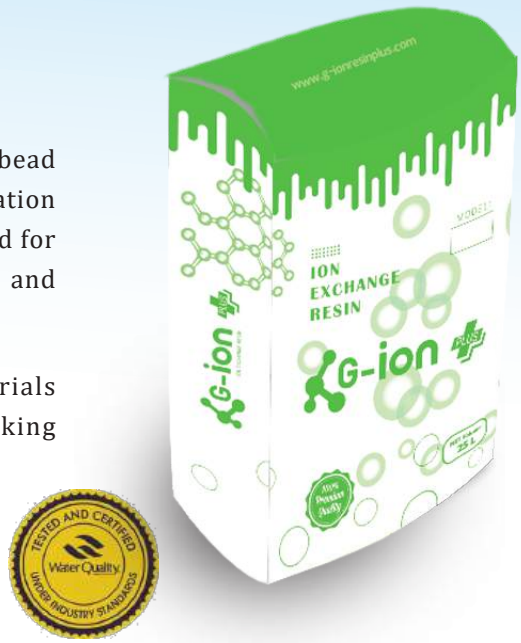
ZGC107

Styrene Series Strongly Acidic Cation Exchange Resin

Product Description & Applications

G-ion plus ZGC107 is a high capacity premium grade bead form, conventional gel polystyrene sulphonate cation exchange resin supplied in the sodium form. It is intended for use in all water softening, dealkalization, deionization and chemical processing applications.

ZGC107 certified by WQA to NSF/ANSI 44&61 for materials safety, is well used for residential softening and drinking water systems.



Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Polystyrene crosslinked with 8% DVB
Functional Group	R-(SO3)-M+
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	0-14

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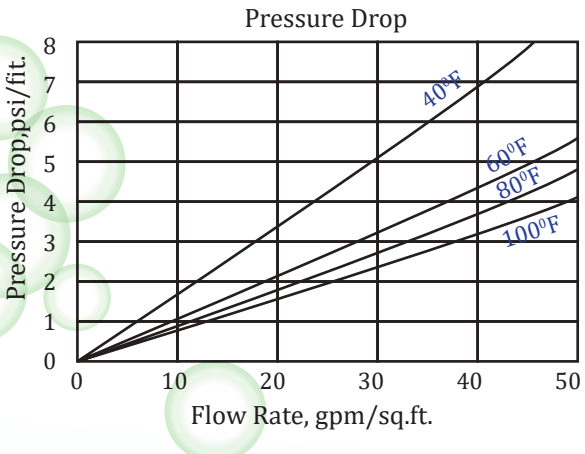
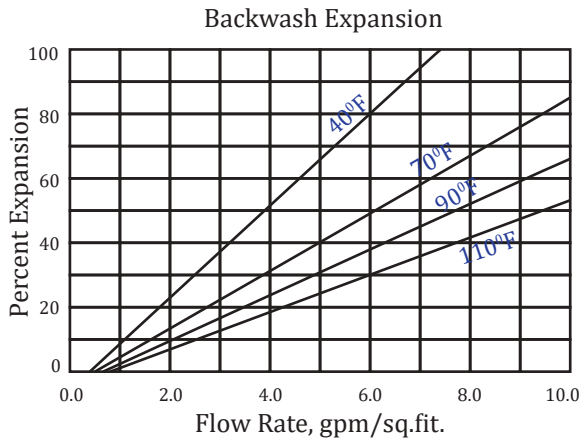
Suggested operating conditions

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 plus ZGC107 in the sodium form.

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Packing and storing conditions

25 Ltr printed bag. Resins should be stored in their original unopened packaging in a cool dry area. An indoor storage facility with climate control between 0-40° C (32-105° F) should be used for the best results. Storage temperatures above 40° C (105° F) can cause premature loss of capacity for anion resins, particularly those stored in the OH-form. While cation resins can withstand higher temperatures (up to 80° C/175° F), it is best to store all resins under similar conditions. Storage temperatures below 0° C (32° F) can cause resin freezing. Tests of G-ion resins under repeated freeze-thaw cycles show that bead damage can occur, so frozen resin must be thawed before safe loading can take place. Frozen resin should be thawed out completely under room temperature conditions before loading and use.