



Product Description

The "G-Ion" brand GC-100 is a sort of Cation exchange resin that has sulfonic group (-SO₃H) in the styrene-diethylene benzene copolymer with 7% cross-linked degree. It is used mainly to soft hard water and produce pure water, as well as used in the hydro-metallurgy and sugar producing and medicine and no sodium glutamate industry, it can be used as catalyzer and dehydrating agent.

Executing standard: GB13659-1992 DL/T 519-2004 SH2605.01-2003

Typical physical and chemical properties:

ITEMS	DATA
Appearance	Palm yellow to burnt brown spherical grain
Ionic form	Na
Moisture content %	45.00-50.00
Total exchange capacity mmol/g	≥4.50
Total exchange capacity mmol/ml	≥1.90
Shipping weight g/ml	0.77-0.87
True density g/ml	1.250-1.290
Particle size range %	(0.315mm-1.250mm) ≥95.0
Lower limit size %	(<0.315mm) ≤1.0
The effective size mm	0.400-0.700
Uniformity coefficient	≤1.60
Sphericity after attrition %	≥90.00

Reference indexes in using

ITEMS	Reference Value
PH range	1-14
Max. operation temperature in sodium form °C	120
Swelling upon complete conversion (Na ⁺ -H ⁺) %	≤10
Working exchange capacity mmol/L	≥1200

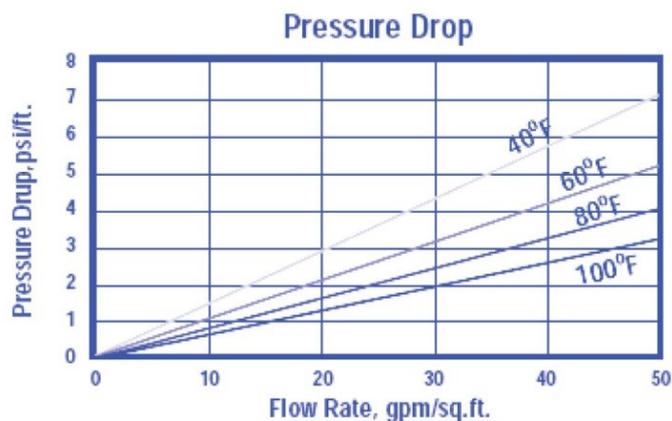
GC100

GC-100 Styrene Series Strongly Acidic Cation Exchange Resin

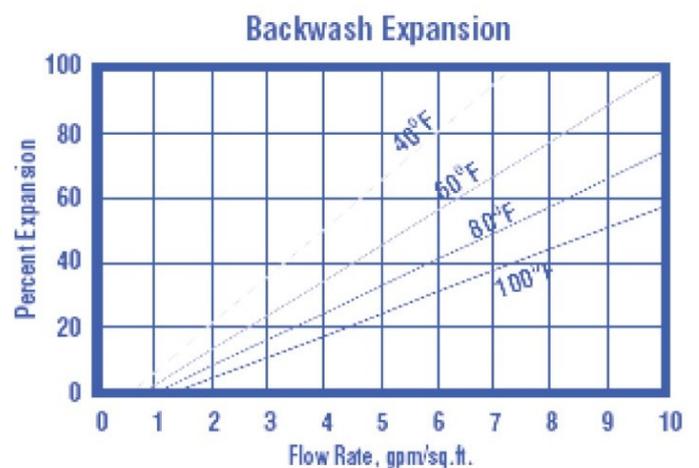
Suggested Operating Conditions

Maximum Temperature	
Na ⁺ form	120°C (248°F) max.
H ⁺ form	100°C (212°F) max.
Minimum Bed Depth	0.6 m (24 inches)
Backwash Rate	50-75% bed expansion
Regeneration	
Regenerant Concentration	8-12% NaCl or saturated salt water
Flow Rate	2 to 7 BV/h (0.25 to 0.90 gpm/cu.ft)
Contact Time	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

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 G-ion GC 100 in the sodium form.