



Product Description

The "G-Ion" GA-400 is a sort of anion exchange resin that has quaternary ammonium group $[-N(CH_3)_3OH]$ in the styrene-diethylene benzene copolymer with 4% cross linking degree. It is used mainly to produce pure water and ultra pure water and decolorize sugar solution and extract biochemical substance and radioelement.

Executing standard: HG/T2163-1991 DL/T519-2004

Typical physical and chemical properties:

ITEMS	DATA
Appearance	Flaxen to chryso spherical grain
Ionic form	Cl
Moisture content %	50.00-60.00
Total exchange capacity mmol/g	≥ 4.00
Strong function group exchange capacity mmol/g	≥ 3.70
Total exchange capacity mmol/ml	≥ 1.10
Shipping weight g/ml	0.66-0.71
True density g/ml	1.06-1.10
Particle size range %	(0.315-1.25mm) ≥ 95
Lower limit size %	(<0.315 mm) ≤ 1
The effective size mm	0.45-0.70
Uniformity coefficient	≤ 1.60
Sphericity after attrition %	≥ 90

Reference indexes in using

ITEMS	Reference Value
PH range	1-14
Max. operation temperature in chlorine form °C	80
Swelling upon complete conversion (Cl ⁻ -OH ⁻) %	≤ 28
Working exchange capacity mmol/L	≥ 480

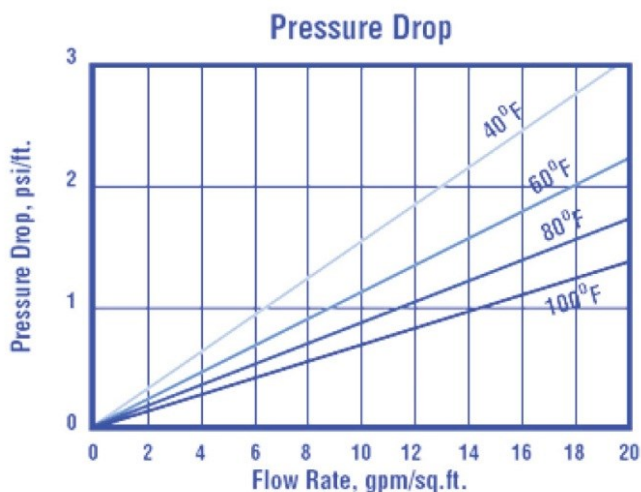
GA400

Styrene Series Strongly Basic Anion Exchange Resin

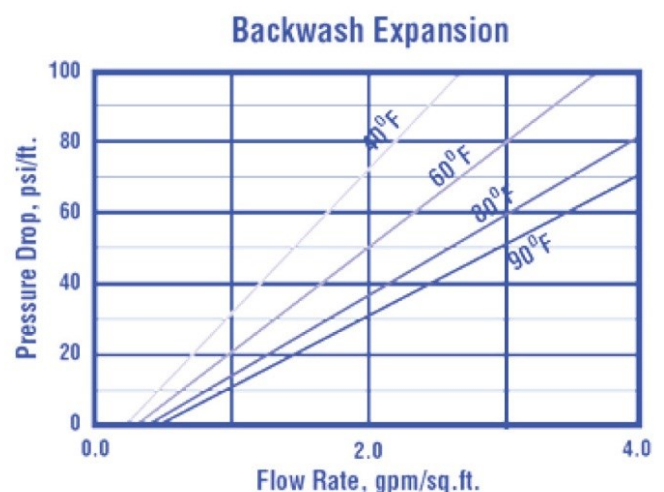
Suggested Operating Conditions

Maximum Temperature	
Cl ⁻ form	100°C (212°F) max.
OH ⁻ form	60°C (140°F) max.
Minimum Bed Depth	0.6 m (24 inches)
Backwash Rate	50-75% bed expansion
Regeneration	
Regenerant Concentration	4-6% NaOH
Flow Rate	2 to 4 BV/h (0.25 to 0.50 gpm/cu.ft)
Contact Time	At least 60 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.