



LA703

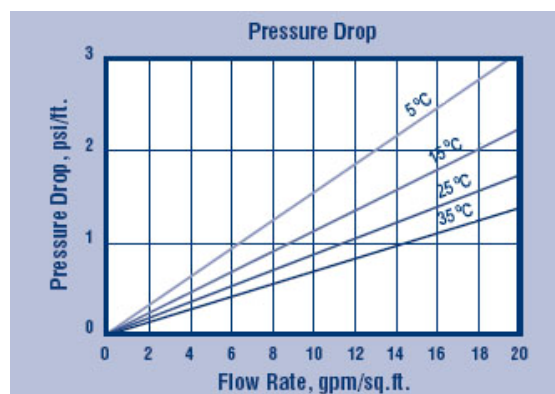
STRONG BASIC ANION EXCHANGE RESIN

IOL LA703 is a standard gel strong base type I quaternary ammonium anion exchange resin with a styrene-DVB copolymer matrix. It has both high operating capacity and the ability to achieve low residual silica levels. IOL LA703 is intended for use in all types of deionization systems and chemical processing applications. It is supplied in chloride form. IOL LA703 is in compliance with the U.S. Food and Drugs Code of Federal Regulations section 21 paragraph 173.25

PHYSICAL & CHEMICAL PROPERTIES

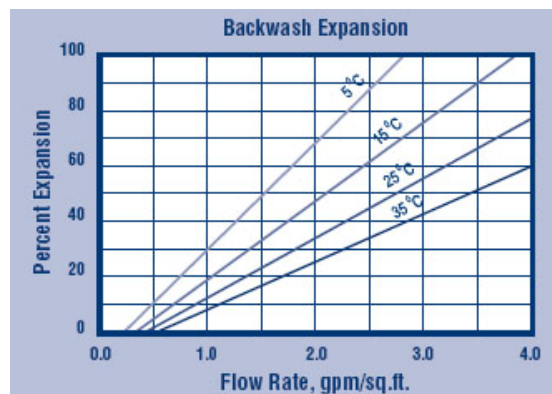
Appearance	White to light yellow spherical beads
Polymer Matrix Structure	Styrene - DVB
Type	Gel strong basic type I
Functional Group	$R-N^+(CH_3)_3 X^-$
Ionic Form	Cl^-
Moisture Content	42 - 48 %
Capacity in Volume	≥ 1.4 meq/ml min
Shipping Weight	0.67- 0.73 g/ml
Density	1.07- 1.10 g/ml
Particle Size Range (0.315 - 1.250 mm)	≥ 95 %
Effective Particle Size Range	0.42 - 0.58 mm
Uniformity Coefficient	≤ 1.60
Swelling ($Cl^- \rightarrow OH^-$)	≤ 25 %
Sphericity	≥ 90 %
Screen Size Range	0.315mm to 1.25mm; 50-16 mesh

HYDRAULIC PROPERTIES



PRESSURE DROP

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



* 1 m/h equals 0.41 gpm/sq.ft

BACKWASH

After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of IOL LA703 in the chloride form.



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SUGGESTED OPERATING CONDITIONS

pH Range	1 - 14
Temperature	≤ 80 °C (For Cl Form) ≤ 60 °C (For OH Form)
Minimum Bed Depth	0.6 m
Regenerant Concentration	2 – 4 % (For NaOH)
Regenerant Flow Rate	4 – 5 m/h (For NaOH)
Regenerant Contact Time	≥ 30 min
Displacement Rinse Rate	4 – 5 m/h (For NaOH)
Displacement Rinse Time	≥ 30 min
Fast Rinse Rate	15 – 20 m/h
Fast Rinse Time	20 – 30 min
Service Flow Rate	15 – 30 m/h

OPERATING CAPACITY

The operating capacity of **IOL LA703** for a variety of acids at various regeneration levels when treating an influent with a concentration 500 ppm as CaCO₃ is shown in the following table:

Gram NaOH/ltr	Capacity meq/ml			
	HCl	H ₂ SO ₄	H ₂ SiO ₃	H ₂ CO ₃
64	0.52	0.64	0.68	0.86
96	0.59	0.75	0.80	0.91
128	0.66	0.61	0.90	0.99
160	0.71	0.92	1.02	1.02

APPLICATIONS

DEMINERALIZATION

IOL LA703 is widely used in multiple and mixed bed demineralizers wherever complete ion removal and physical and osmotic stability are required. Its high capacity and low swelling on regeneration provides maximum operating capacity in deionization applications for all application from ultra pure to wastewater treatment and precious metal recoveries.

DESILICIZERS

IOL LA703 can remove all ionized substances, including weak acids such as silica and carbonic acid as well as strong acids, sulfate and chloride. Type I anion exchanges have greater thermal and oxidation resistance than other types of strong base resins and can operated at higher temperatures to insure low silica leakages. The resin operated in the hydroxide cycle is a very effective way of providing low silica and low hardness water for medium and high pressure boilers.

* For potable water applications, the resin must be properly pre-treated, usually by multiple exhaustion and regeneration cycles, to insure compliance with extractable levels.

PACKING

PE lined with plastic bag. Net weight: 25 litres (17 kg.) / Bag

* CAUTION: DO NOT MIX ION EXCHANGE RESIN WITH STRONG OXIDIZING AGENTS. Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials, such as ion exchange resins.

Material Safety Data Sheets (MSDS) are available for all IOL products. To obtain a copy, contact your local sales representative or our corporate headquarters. They contain important health and safety information. That information may be needed to protect your employees and customers from any know health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used. These suggestions and data are based on information we believe to be reliable. They are offered in good faith. However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.