

TULSION[®]



A-23P

'PREMIUM GRADE' STRONG BASE TYPE-I ANION EXCHANGE RESIN

Tulsion[®]A-23P is a premium grade strong base anion exchange resin based on polystyrene matrix containing quaternary ammonium type-I group with greater matrix porosity. It is supplied in chloride form.

Tulsion[®]A-23P has excellent operating characteristics alongwith effective removal of weak acids such as silicic and carbonic acids in hydroxide form. The porous gel structure of Tulsion A-23P has an advantage over less porous gel resins when treating waters containing high molecular weight organic contaminants. The porous gel structure of Tulsion A-23P facilitates both the removal of organic contaminants from influent waters, and the desorption of these contaminants from the resin with commonly used regeneration techniques. Hence Tulsion A-23P provides excellent exchange capacity for inorganics as well as for organics. Tulsion A-23P is used in hydroxide form alongwith with Tulsion T-42 in hydrogen form, both in two bed and in mixed bed systems to produce high purity demineralized water. It is ideally suited for use in a wide range of pH and temperature conditions.

TYPICAL CHARACTERSTICS

Type	:	Strong base anion Exchange resin
Matrix Structure	:	Cross Linked polystyrene
Functional group	:	Quaternary Ammonium, Type-I
Physical form	:	Moist spherical beads
Ionic form	:	Chloride
Particle Size	:	0.3-1.2mm
Screen Size U.S.S	:	16 to 50
Total Exchange capacity	:	1.30 meq/ml-min
Operating pH range	:	0-14
Moisture content	:	50-56%
Reversible swelling (approx.)	:	Cl ⁻ to OH ⁻ 25%
Backwash settled density	:	42 to 44 lbs/ft ³ (670-710 g/l)

TYPICAL OPERATING CONDITIONS

Maximum Operating Temp.	:	175°F (80°C)
Resin bed Depth	:	24"(600 mm)
Maximum Service Flow	:	7.5 gpm/ft ³ (60 M ³ /Hr/M ³)
Backwash Expansion space	:	50-70%
Backwash Expansion Flow Rate at 77°F(25°C)	:	2.0 to 4.0 gpm/ft ² (5 to 10 M ³ /Hr/M ²)
Regenerant	:	NaOH
Regeneration level	:	2.5 to 10 lbs NaOH/ft ³ (40 to 160 gNaOH/l)
Regenerant concentration	:	4%
Regeneration time	:	30-60 minutes
Rinse flow rate: Slow	:	At regeneration flow rate
Fast	:	At service flow rate.
Rinse Volume	:	30 to 75 gal/ft ³ (4 to 10 M ³ /M ³)
Influent Limitations		
Free Chlorine	:	Not traceable
Turbidity	:	Less than 2 N.T.U
Iron and Heavy metals	:	Less than 0.1 ppm

PACKING

Super Sacks	1000 Liters
Fiber drums	180 Liters
Polythene lined bags	25 Liters

Supersacks	35 ft ³
Fiber Drums	7 ft ³
Polythene lined bags	28.32 Liters



THERMAX INC.
40440 Grand River Avenue, Novi,
Michigan 48375, USA
Tel# 248-474-3050, Fax# 248-474-5790

THERMAX
CHEMICAL DIVISION
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