

TULSION®



A-21

PREMIUM GRADE STRONG BASE TYPE-I ANION EXCHANGE RESIN

Tulsion®A-21 is a premium grade strong base anion exchange resin based on polystyrene matrix containing quaternary ammonium type-I group and supplied in chloride or hydroxide form.

Tulsion A-21 exhibits excellent physical and chemical characteristics.

Tulsion A-21 a strong base anion resin with a controlled particle size cut is used in hydroxide form alongwith with Tulsion T-50 in hydrogen form and Tulsion TA-100 a inert separation media 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 CHARACTERISTICS

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 or Hydroxide
Particle Size	:	0.4 - .85 mm
Screen Size U.S.S	:	20 – 40
Total Exchange capacity	:	1.30 meq/ml-min
Operating pH range	:	0-14
Moisture content	:	46 – 54 % (Range)
Reversible swelling (approx.)	:	Cl ⁻ to OH ⁻ 20% - approx.
Backwash settled density	:	43 to 45 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



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