

TULSION® A-36 MP

MACROPOROUS STRONG BASE TYPE II ANION EXCHANGE RESIN

TULSION® A-36 MP is a highly efficient and durable strong base Type II macroporous anion exchange resin. Based on a cross linked polystyrene matrix, it offers an unusually high operating capacity and excellent regeneration efficiency.

The macroporous nature of strong base TULSION® A-36 MP ensures consistent long term performance in the deionization and dealkalization of water.

TYPICAL CHARACTERISTICS

Type	: Macroporous Strong Base Anion Exchange Resin
Matrix structure	: Cross linked Polystyrene
Functional group	: Quaternary ammonium Type II
Physical form	: Moist Spherical Beads
Ionic form	: Chloride
Screen size U.S.S. (wet)	: 16 to 50
Particle size	: 0.3 to 1.2 mm
Total Exchange Capacity	: 1.2 meq/ml
Swelling (approx.)	: Cl ⁻ to OH ⁻ 9%
Moisture content (approx.)	: 49%
pH range	: 0 to 14
Solubility	: Insoluble in all common solvents
Backwash settled density	: 670 to 710 g/l
Shipping Weight	: 0.69 kg / lit (approx.)

OUTSTANDING FEATURES

TULSION®A-36 MP belongs to second generation macroporous ion exchange resins which have a distinctly different matrix from that of gel type and conventional macroporous resins. It offers an exceptionally high operating capacity. The controlled macroporous structure of TULSION® A-36 MP affords high mechanical strength and excellent bead stability.

Additional performance features include.

- Better diffusion rates of ions towards the interior of the exchanger beads when compared to gel type anion exchangers
- Excellent ion exchange kinetics and ability to achieve low silica leakage levels
- High capability of absorption and subsequent elution of large organic ions as well as certain non-ionic organic contaminants.

TYPICAL OPERATING CONDITIONS

Maximum operating temp. : 60° C (140° F)

Resin bed depth (minimum) : 24" (600 mm)

Maximum Service flow : 60 m³/hr/m³

Backwash expansion space : 40 to 70%

Backwash expansion flow rate at 25°C (77°F) : 3 to 10 m³/hr/m²

Regenerant : NaOH / NaCl

Regenerant level : 40 to 160 g NaOH/l
100 to 160 g NaCl/l

Regenerant concentration : 4 to 8% NaOH
5 to 10% NaCl

Regeneration time : 15 to 60 minutes

Rinse flow rate : Slow : At regenerant flow rate

Fast : At service flow rate

Rinse volume : 4 to 10 m³/m³

Influent Limitations

Free chlorine : Not traceable

Turbidity : Less than 2 N. T. U.

Iron and heavy metals : Less than 0.1 ppm.

APPLICATION

Demineralization

TULSION A-36 MP is a highly efficient and durable strong base Type II macroporous anion exchanger offering an exceptionally high operating capacity and excellent regeneration efficiency. The high degree of porosity of TULSION A-36 MP ensures consistent and long term performance. The excellent properties of TULSION A-36 MP for removal of all anions including weak acids like carbonic and silicic acid result in high quality of treated water when used in hydroxide form along with the strong acid cation exchanger TULSION T-42 in hydrogen form, in two bed systems. TULSION A-36 MP is supplied in chloride form and must be regenerated with a good grade of sodium hydroxide before use in the demineralization system. Low silica leakage comparable with Type I resin coupled with higher regeneration efficiencies can be achieved by

adopting a counter current regeneration system for TULSION A-36 MP.

The operating capacity of TULSION A-36 MP, when used in two bed demineralization system depends on the

- Regeneration level employed
- Ratio of silica to the total anions.

Dealkalization

TULSION A-36 MP in chloride form can be used for dealkalization of water. The alkalinity present in water is replaced by chloride ions, thus reducing the alkalinity of water. The exhausted resin can be regenerated by 5 to 10% solution of sodium chloride. This technique of dealkalization is adopted for treatment of boiler feed water for low/medium pressure boilers.

PACKING :

Super sacks	1000 lits
MS drums	180 lits
HDPE lined bags	25/30 lits

Super sacks	35 cft
Fibre drums	7 cft
HDPE lined bags	1 cft