THERMAX

TULSION® A-2XMP

Macroporous Weak Base Anion Exchange Resin

TULSION® A-2X MP is an extremely durable macro-porous week base anion exchange resin characterized by tertiary amine groups attached to a styrene divinyl benzene copolymer matrix. It has unique physical structure that gives it superior kinetics and greater resistance to osmotic shock than gel type weak base anion exchangers.

TULSION® A-2X MP yields exceptionally high operating capacity on caustic soda regeneration and has low rinse requirements. It has a higher resistance to organic matter than gel type anion exchangers.**TULSION® A-2X MP** is supplied as spherical moist beads in the free base form, ready to use.

TYPICAL CHARACTERISTICS – TULSION® A-2X MP

Type	:	Macro-porous weak basic anion exchange resin
Matrix structure	:	Polystyrene copolymer
Functional group	:	Tertiary amine
Physical form	:	Moist Spherical Beads
Ionic form	:	Free base
Screen Size USS (wet)	:	16 to 40
Particle size (min 95%)	:	0.3 to 1.2 mm
Total Exchange Capacity (mm)	:	1.5 meq/ ml
Swelling (approx)	:	Free base to Cl^- 20%
Moisture content	:	47±3%
Backwash settled density	:	40 to 42 lbs/ft^3 (640 to 670 g/l)
Temperature stability (max)	:	80° C (175° F)
pH range	:	0 to 9
Solubility	:	Insoluble in all common solvents

TYPICAL OPERATING CONDITIONS – TULSION® A-2X MP

Maximum operating temperature	:	175° F (80° C)
Resin Bed depth (minimum)	:	24" (600 mm)
Maximum service flow	:	40 m^3/hr /m^3
Backwash expansion space	:	50 – 70 %
Backwash expansion flow rate at 77° F (25° C)	:	4 – 6 m^3/hr/m^2
Regenerant	:	NaOH, Na_2CO_3, NH_4OH
Regeneration level	:	120 % of the operating capacity for NaOH
Regeneration concentration	:	1 to 5 %
Regeneration time	:	20 to 60 minutes
Rinse flow rate : Slow	:	At regeneration flow rate
: Fast		At service flow rate
Rinse volume	:	2 to 7 m^3 /m^3

INFLUENT LIMITATIONS

Free chlorine	:	Not traceable
Turbidity	:	Less than 2 NTU
Iron and heavy metals	:	Less than 0.1 ppm

HYDRUALIC CHARACTERISTICS

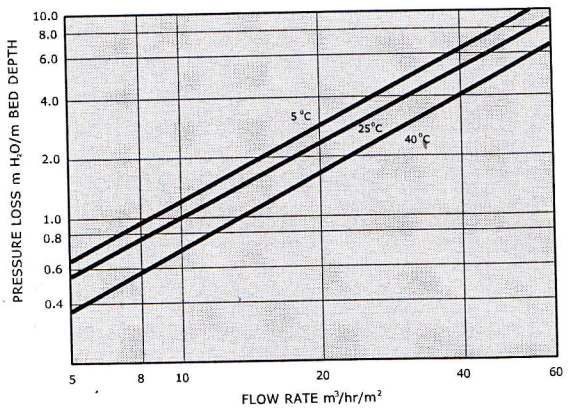

FIG. 1 PRESSURE LOSS

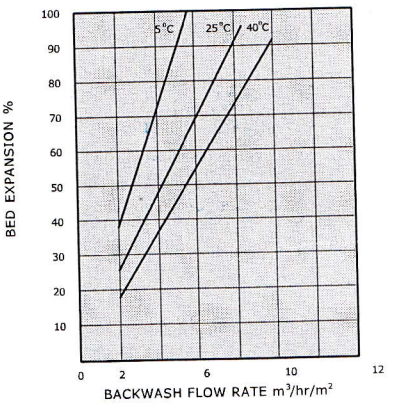

FIG. 2 BACKWASH AND BED EXPANSION

TESTING

The sampling and testing of ion exchange resins is done as per standard testing procedures, namely ASTMD-2187 and IS-7330, 1998.

PACKING

Super sacks	1000 liters
MS drums	180 liters
HDPE lined bags	25 liters

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

For Handling, Safety and Storage requirements please refer to the individual Material Safety Data Sheets available at our offices. The data included herein are based on test information obtained by Thermax Limited. These data are believed to be reliable, but do not imply any warranty or performance guarantee. Tolerances for characteristics are as per BIS/ASTM. We recommend that the user should determine the performance of the product by testing on own processing equipment.

For further information, please contact:

THERMAX

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In view of our constant endeavour to improve the quality of our products, we reserve the right to change their specifications without prior notice.

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