TULSION® A-23

'Tough Gel' Strong Base Anion Exchange Resin Type I

TULSION® A-23 is a strong base anion exchange resin based on polystyrene matrix, containing quaternary ammonium Type I group. **TULSION® A-23** has excellent chemical and operating characteristics along with excellent physical properties due to its crack-free nature. **TULSION® A-23** has a good operating capacity for weak acids like silicic and carbonic along with strong mineral acids, when used in water treatment along with strong acid cation exchange resin Tulsion® T-42. It is ideally suited for use in a wide range of pH and temperatures.

TULSION® A-23 is supplied as moist spherical bead in the chloride form with a particle size distribution to provide good kinetics and minimum pressure drop. The bed surface of A-23 is crackfree & hence it exhibits very high bead strength.

TYPICAL CHARACTERISTICS – Tulsion® A-23

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
Screen size USS (wet)	:	16 to 50
Particle size (minm. 95%)	:	0.3 to 1.2 mm
Total exchange capacity (minm.)	:	1.3 meq/ ml
Swelling (approx.)	:	Cl^- to OH^- 20%
Moisture content	:	53 ± 3%
Backwash settled density	:	42 to 44 lbs/ ft^3 (670 to 710 g/l)
Thermal stability °F/ °C	:	175/80 Cl^-
pH range	:	0 to 14
Solubility	:	Insoluble in all common solvents

TYPICAL OPERATING CONDITIONS – Tulsion® A-23

Maximum operating temperature	:	60° C (140° F)
Resin bed depth (minm.)	:	24" (600 mm)
Maximum service flow	:	60 $m^3/hr/m^3$
Backwash expansion space	:	50 to 70 %
Backwash expansion flow rate at 25° C (77° F)	:	5 to 10 $m^3/hr/m^2$
Regenerant	:	NaOH
Regenerant level	:	40 to 160g NaOH/l
Regenerant concentration	:	4 to 5 % NaOH
Regeneration time	:	30 to 60 mins.
Rinse flow rate : Slow	:	At regenerant flow rate
Fast	:	At service flow rate
Rinse volume	:	4 to 10 m^3/m^3

HYDRAULIC CHARACTERISTICS

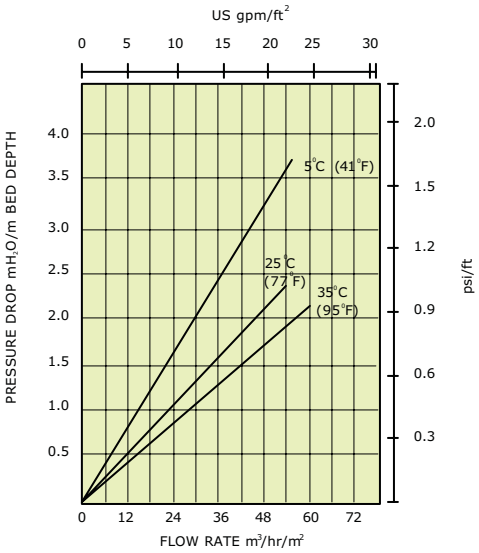

FIG. 1 PRESSURE LOSS

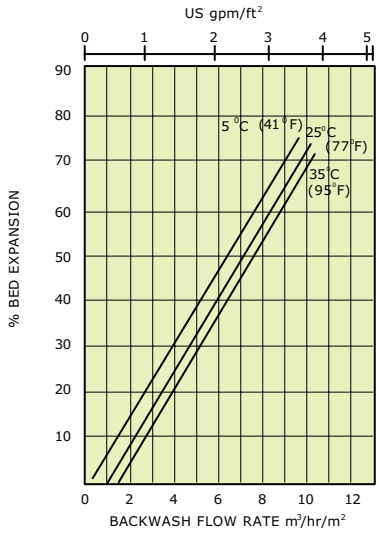

FIG. 2 BACKWASH AND BED EXPANSION

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:

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Підписано у **Dubidoc**

Назва документа: TULSION A-23
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Підпис 1
П.І.Б.: ЗАНІН МАКСИМ ЮРІЙОВИЧ
РНОКПП: 2767506015
Організація (установа): ФІЗИЧНА ОСОБА
Час підпису: 18.02.2026 21:16:37
Статус перевірки сертифікату: Сертифікат діє
Серійний номер: 5E984D526F82F38F04000000E245D600175CAC06