Product Data Sheet

THERMAX

TULSION® T- 42 Na N

Strong acid cation exchange resin

Tulsion® T-42 Na N is a premium grade strong acid cation exchange resin with high exchange capacity. It has excellent physical and chemical stability, containing sulphonic acid groups.

T-42 Na N is NSF-certified and supplied in sodium form. During manufacturing, it's treated to achieve low VOCs to meet NSF standards.

Regulatory certificates & approvals

- WQA - NSF/ANSI – 44, 61 standards
- HALAL certified
- Kosher certified

Applications

- Softening - industrial and domestic water
- Food and beverages industries
- Potable water softening

Typical characteristics of Tulsion® T-42 Na N	
Type	Gel type strong acid cation exchange resin
Appearance	Dark brown color
Matrix structure	Cross-linked polystyrene
Functional group	Sulphonic
Physical form	Moist spherical beads
Ionic form	Sodium
Screen size USS (Wet)	16 to 50
Particle size (95%Min.)	0.3 to 1.2 mm
> 1.2 mm (Max.)	2% max.
< 0.3 mm (Max.)	1% max.
Uniformity coefficient (Max.)	1.7
Total exchange capacity (Min.)	2.0 meq/ml (Na^+) (43.8 Kgr.as $CaCO_3$/cft)
Moisture content	42 to 47% (Na^+)
Reversible swelling (Approx.)	Na^+ to H^+: 7%
pH range	0 to 14
Solubility	Insoluble in all common solvents
Shipping density (Approx.)	810 gm /l (50.5 lbs./cft)
Temperature stability (Max.)	284ºF/140ºC (Na^+)

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

Suggested operating conditions for Tulsion® T-42 Na N

Maximum operating temperature	140°C (284 °F) in Na^+ form
Resin bed depth (minimum)	600 mm (24”)
Maximum service flow	60 $m^3/hr/m^3$ (7.5 gpm/ft^3)
Backwash expansion space (Min.)	40 to 70%
Backwash flow rate for 40-70% expansion at 77 °F (@25°C)	9 to 25 $m^3/hr/m^2$ (3.7 to 10.2 gpm/ft^2)
Regenerant	NaCl
Regeneration level	60 to 200 g NaCl / l (3.75 to 12.5 lbs/cft)
Regenerant concentration	10 - 15% NaCl
Regenerant flow rate	2 to 16 $m^3/hr/m^3$ (0.25 to 2 gpm/ft^3)
Regeneration time	30 to 60 min.
Rinse flow rate : Slow	At regeneration flow rate
: Fast	At service flow rate
Rinse volume	3 to 5 m^3/ m^3 (22 to 38 gal/cft)

Testing

The sampling and testing of ion exchange resins is done as per standard testing procedures, namely ASTM-D2187-17 and IS-7330, 1998.

ISO certificates

ISO 14001: 2015, ISO 45001: 2018, and ISO 9001:2015

Packing

Super sack	1000 lit	Super sack	42 cft
MS drums	180 lit	Super sack	35 cft
HDPE sack	50 lit	Fiber drums	7 cft
HDPE lined bags	25 lit	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 standards. We recommend that the user should determine the performance of the product by testing on his own processing equipment.

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

Registered Office

Thermax Limited
D-13, MIDC Industrial Area, R D Aga Road,
Chinchwad, Pune 411019, India

Thermax Limited

Environment House,
Chemical Division, 90-92, BG Block,
MIDC, Bhosari, Pune-411026, India.
Tel: +9120 6715 6000
Email: enquiry@thermaxglobal.com

Thermax Inc.

16200 Park Row, Suite 190,
Houston, Texas 77084,USA.
Tel: +1281-600-1331-5
Email: customerservice@thermax-usa.com

thermaxglobal thermax_global thermaxlimited thermaxglobal thermaxmedia

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