

## **TULSION<sup>®</sup> T-42 H SM**

### **STRONG ACID CATION EXCHANGE RESIN – HYDROGEN FORM**

**Tulsion<sup>®</sup> T-42 H SM** is a premium quality strong acid cation exchange resin containing nuclear sulphonic acid groups having high exchange capacity combined with excellent physical and chemical stability and operating characteristics. It is ideally suited for use in wide range of pH and temperature conditions.

**Tulsion<sup>®</sup> T- 42 H SM** is supplied in hydrogen form for two stages and mixed bed demineralization and in sodium form for softening.

**Tulsion<sup>®</sup> T- 42 H SM** is also used for de-alkalization and chemical processing.

#### **TYPICAL CHARACTERISTICS**

Type	Strong acid cation exchange resin
Matrix structure	Polystyrene Copolymer
Functional group	Nuclear sulphonic
Physical form	Moist Spherical Beads
Ionic form	Hydrogen
Screen Size USS (wet)	16 to 40
Particle size (95% min)	0.4 to 1.2 mm
Uniformity coefficient	1.5 max
Total Exchange Capacity	1.8 meq/ ml (min).
Moisture content	52 ± 3%
Swelling (approx)	Sodium to Hydrogen : 7%
pH range	0 to 14
Solubility	Insoluble in all common solvents
Backwash settled density	830 to 840 g / l



CHARACTERISTICS	
Maximum operating temperature	120°C in H form
Resin bed depth (minimum)	800 mm
Maximum service flow	120 m <sup>3</sup> /hr/m <sup>3</sup>
Backwash expansion space	40 – 75%
Backwash flow rate for 40-70% expansion	9 – 25 m <sup>3</sup> /hr/m <sup>3</sup>
Regenerant	HCl / H <sub>2</sub> SO <sub>4</sub>
Regeneration level	30 to 160 g/l
Regenerant concentration	3 to 4% HCl; 1.5 to 5% H <sub>2</sub> SO <sub>4</sub>
Regenerant flow rate	2 to 16 m <sup>3</sup> /hr/m <sup>3</sup>
Regeneration time	20 to 60 min
Rinse flow rate : Slow	At regeneration flow rate
: Fast	At service flow rate
Rinse volume	3 – 5 m <sup>3</sup> / m <sup>3</sup>

### TESTING :

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

### PACKING :

Super Sack	1000 lit.	Super Sack	35 cft
MS drums	180 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 per BIS/ASTM. We recommend that the user should determine the performance of the product by testing on his own processing equipment.



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