

TULSION[®] T- 45BD

Tulsion® special grade ion exchange resin for Biodiesel purification

Tulsion®T-45 BD is a premium grade, solid acid catalyst based on a cross-linked polystyrene matrix containing sulfonic acid group. This resin is manufactured using controlled particle size synthesis and is used for many process applications.

The first step in biodiesel production involves esterification of fatty acids and transesterification of triglycerides, commonly found in raw oil feedstock. This process yields a fatty- acid-methyl-ester or "biodiesel" component in the hydrophobic phase and a glycerin component in hydrophilic phase.

In the purification step, Tulsion®T-45 BD is used to remove trace levels of glycerin and soaps from the biodiesel exhibiting high conversion with excellent physical, chemical stability and operating characteristics. Tulsion®T-45 BD can be used in wide range of temperature and pH condition.



TYPICLAL OPERATING CHARACTERISTICS - TULSION®T- 45BD

| Resin Type | : Strong acid cation exchange resin. | |
|------------------------|--------------------------------------|--|
| Matrix structure | : Cross linked polystyrene | |
| Functional group | : Sulfonic acid. | |
| Physical form | : Dry spherical beads. | |
| Ionic form | : Hydrogen. | |
| Particle size | : 0.4-1.2 mm. | |
| Screen size | : 16-40 U.S.S(wet) | |
| Dry Weight capacity | : 5.0meq/gm (min) | |
| Uniformity coefficient | : 1.5 max. | |
| Moisture content | : 3% max. | |
| Effective size | : 500-600 microns. | |
| Operating pH range | : 0-14. | |
| Solubility | : Insoluble in all common solvent. | |
| Oligomer | : 50 ppm max | |
| | | |

TESTING

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

PACKING

| Super Sack | 1000 lit | Super Sack | 35 cft |
|-----------------|----------|-----------------|--------|
| MS drums | 180 lit. | Fiber Drums | 7 cft |
| HDPE lines 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 date 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.

For further information, please contact: chemicals@thermaxindia.com



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