

USF NR-20LC NUCLEAR GRADE MIXED BED RESIN

Description:

USF NR-20LC is a 1:1 chemical equivalent of USF NR-26 and NR-2LC. USF NR-26 is a strong acid cation exchange resin that is manufactured from polystyrene, is crosslinked with divinylbenzene, and is in the lithium⁷ form. This resin is a gel cation with an amber to dark bead appearance. USF NR-2LC is a strong base Type I gel anion resin consisting of a styrene divinylbenzene matrix with an amber color processed to have extremely low chloride content. USF NR-20LC is designed for use in the primary systems of nuclear applications.

Chemical Properties

Functional Groups	Sulfonic Acid, Trimethylamine
Ionic Form (as shipped)	Lithium ⁷ / Hydroxide mix
Moisture Content	55% maximum (H form cation) / 48% maximum (Cl form anion)
Exchange Capacity	1.8 meq / ml minimum (H form cation) / 1.1 meq / ml minimum (OH form anion)
Impurities	
Hydrogen (H)	1% maximum (cation)
Chloride (Cl)	0.1% maximum (anion)
Carbonates (CO ₃)	5% maximum (anion)

Physical Properties

Particle Screen Sizing	
+ 16 Mesh	3% maximum
- 50 Mesh	0.5% maximum
Whole Beads (%)	90 minimum
Shipping Weight	43 lbs. / cu. ft.

Operating Conditions

Operating pH Range	1 to 14
Service Flow Rate	1 to 4 gpm / ft ³
Maximum Operating Temperature	140°F